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July 25, 2011 Project No. 0647-01-36-42-02

Ms. Elizabeth Slone
MC 124
Project Manager
Municipal Solid Waste Permits Section
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

Re: Permit Modification
Passive Vents Installation
Castle Drive Landfill - TCEQ Permit No. MSW-1062A
Dallas County, Texas
RN100221225/CN600328694

Dear Ms. Slone:

The purpose of this Permit Modification submitted on behalf of City of Garland (City), is to modify the site's existing Attachment 14 – Landfill Gas Management Plan (LGMP) to incorporate the installed passive vents at the site into the site's existing LGMP. The purpose of these passive vents installation was to mitigate landfill gas (LFG) migration in the vicinity of perimeter gas monitoring probes PP-6 and PP-9. This permit modification is being submitted as a public notice permit modification in accordance with Title 30 of the Texas Administrative Code (30 TAC), §305.70(k)(3).

Additional/replacement pages for the site's LGMP are included in Attachment 1. The following summarizes the changes made to the existing LGMP:

- The Attachment 14 cover page has been revised to reflect the current revision date.
- Section 6 has been revised to describe the installed passive vent at the site.
- Appendix H has been revised to update and rename the existing drawings as well
 as to include the lithologic logs and the driller's completion reports of the installed
 passive vents. The replacement drawings/additional documents included are:
- Attachment H2: Site Plan [Updated and Renamed Includes correct LFG probe locations]
- Attachment H3: Passive Vent Details [Replaced]
- Attachment H4: Passive Vent Lithologic Logs [Added]

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Attachment H5: Driller's Passive Vent Completion Reports [Added]

Background

In May 23, 2011, the City submitted the LFG Remediation Plan to the Texas Commission on Environmental Quality (TCEQ) to address elevated methane concentrations in the site's LFG monitoring probes PP-6 and PP-9. The remediation plan included the installation of the passive vents and the conversion of the three existing passive vents near PP-9 to active soil vapor extraction wells. As such, this permit modification is being submitted to incorporate the installed passive vents and the conversion of the existing vents into the site's current permit.

System Installation

As shown on Attachment H2, seventeen passive vents were installed on May 16, 2011 through June 3, 2011 along the vicinity of the probe PP-6 to remediate LFG migration at the site. The passive vents were installed in vertical borings drilled both within and outside the limits of waste and were completed as shown on details in Attachment H3. The lithologic logs and driller's completion reports of the installed passive vent were included in Attachment H4 and Attachment H5, respectively.

In addition, existing three passive vents near probe PP-9 were converted to the active soil vapor extraction well. The existing vents were connected to the existing GCCS through the collection piping to convey the collected gas to the on-site blower/flare facility.

Permit Modification Justification

The City understands the importance of maintaining effective environmental controls at the landfill. The primary purpose of the passive vents installation and conversion of the existing vents near PP-9 is to remediate LFG migration at the site. As such, please process this permit modification request per 30 TAC §305.70(k)(3). understanding that public notice will be required for this permit modification. Please note that a surrounding landowner's map, along with a list of the property owners' names and addresses, is included in Attachment 2. In addition, an applicant certification consistent with 30 TAC §305.70(f) and §305.44 is included on Page 10 of the Part I Form in Attachment 3. In accordance with Title 30 TAC §330.59(h)(1), a \$150.00 application fee has been submitted to the TCEQ as documented on Page 8 of the Part I Form in Attachment This application will be posted the on (http://www.ci.garland.tx.us/Home/Departments/Utility+Services/Environmental+Waste+ Services/) consistent with Title 30 TAC §330.57(i)(1).

Ms. Elizabeth Slone July 25, 2011 Page 3

One original and one copy of the permit modification are provided for your use and distribution. To facilitate your review, we have included copies of the LGMP revisions in both a clean and redline/strikeout format. In addition, one copy of this permit modification has been provided to the appropriate regional office. A copy of this submittal was also placed in the site operating record.

If you have any questions or comments regarding this submittal, please do not hesitate to contact us.

Sincerely,

Weaver, Boos Consultants, LLC-Southwest

Matt Stutz, P.E.

Senior Engineer - Principal

Attachments: Attachment 1 – Attachment 14 Revisions Pages

Attachment 2 – Landowners List and Map

Attachment 3 – Part I Form

Attachment 4 – Attachment 14 Revisions Pages (Redline/Strikeout Format)

cc: TCEQ Region 4 Office

Lonnie R. Banks, City of Garland ChiChi Folorunso, City of Garland Divya Garrepalli, City of Garland

ATTACHMENT 1 ATTACHMENT 14 REVISION PAGES

CITY OF GARLAND CASTLE DRIVE LANDFILL DALLAS COUNTY, TEXAS MSW PERMIT NO. 1062A

PERMIT MODIFICATION

ATTACHMENT 14 LANDFILL GAS MANAGEMENT PLAN

Prepared for

City of Garland

April 1994 Revised April 1998 Revised May 2002 Revised January 2010

Revised July 2011

MATT K. STUTZ
93662
93662

MONAL
7/25/11

Prepared by

Weaver Boos Consultants, LLC-Southwest

TBPE Registration No. F-3727 6420 Southwest Boulevard, Suite 206 Fort Worth, Texas 76109 817-735-9770

Project No. 0647-01-11-25-06

6.0 LFG CONTROL SYSTEM INSTALLATION AND MONITORING

The objective of the active gas control system installation is to prevent the migration of landfill gas.

The results of Landfill Gas Monitoring, described in Section 4.0, will be presented to TCEQ for review. If a LFG control system is required at the landfill to control/prevent off-site gas migration, the City of Garland will pursue one of two alternatives.

- Passive Gas Control System
- Active Gas Control System

An active gas system is currently in place for the landfill due to potential beneficial use of the landfill gas. However, the City may adopt a passive gas control system in the future if changes in the economics of an active system, applicable regulations, and/or site conditions occur.

Three passive gas vents have been installed south of landfill gas permit probe PP-9 to reduce the potential for off-site landfill gas migration. Attachment H2 depict the location of the three passive vents.

[2011 Installation] The 2011 installation, as shown in Attachment H2, includes the installation of seventeen passive vents and conversion of the three existing vents near PP-9 to active soil vapor extraction wells.

6.1 Passive Gas Control System

Passive vents can release some of the pressure of landfill gas within the waste and soil, thus reducing the amount of localized gas migration. The passive system is relatively economical to design, install and operate. Typical passive gas control system consist of gas "vents". The vents are simple in design and require low maintenance. The design of a typical passive gas control vent is shown in **Appendix H**.

The proposed passive gas control system at the City of Garland Castle Drive Landfill will consist of gas vents installed in the refuse or in the existing ground outside the limits of waste. The passive vents will initially free vent into the atmosphere, thereby reducing subsurface pressure and control local lateral migration. The design and the spacing of the vent wells will be such that in the future, if necessary, the system could be converted into an "Active Gas Control system".

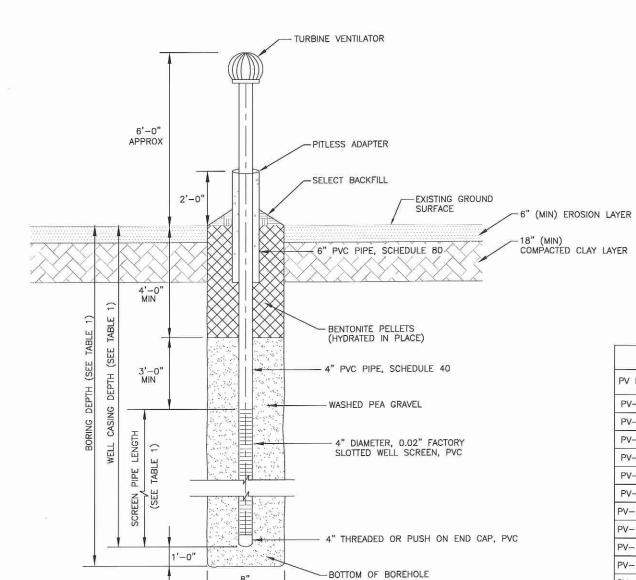
The locations of the passive vents will be determined using any one of the following three methods:

A. Surface monitoring and observations:

Observations of the surface conditions at the site can aid in determining the best location(s) for passive vents. Venting cracks, stressed vegetation, and odors are all indicative of gas migration through the soil cover. In addition, monitoring of the surface may be conducted to locate less visible emission sources.

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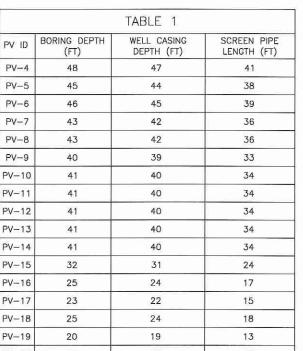


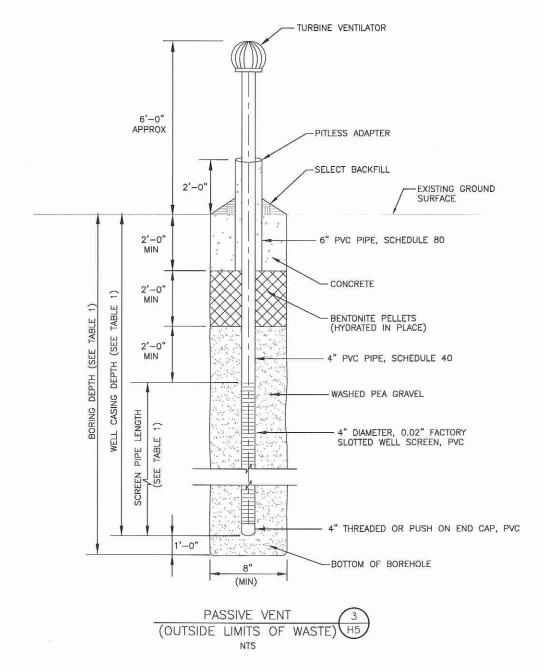


P	ASSIVE	VEN	IT	$\overline{2}$
(INSIDE	LIMITS	OF	WASTE)	H5
	NTS			

(MIN)

		TABLE 1	
PV ID	BORING DEPTH (FT)	WELL CASING DEPTH (FT)	SCREEN PIPE LENGTH (FT)
PV-4	48	47	41
PV-5	45	44	38
PV-6	46	45	39
PV-7	43	42	36
PV-8	43	42	36
PV-9	40	39	33
PV-10	41	40	34
PV-11	41	40	34
PV-12	41	40	34
PV-13	41	40	34
PV-14	41	40	34
PV-15	32	31	24
PV-16	25	24	17
PV-17	23	22	15
PV-18	25	24	18
PV-19	20	19	13
PV-20	17	16	10





THESE DETAILS ARE APPLICABLE ONLY TO PV-4 THROUGH PV-20. FOR PV-1 THROUGH PV-3 DETAIL PLEASE REFER TO DETAIL 1 IN ATTACHMENT H1.

DRAFT X FOR PERMITTING PURPO ISSUED FOR CONSTRUCT CLIENT APPROVAL BY:			CITY	PREPARED FOR OF GARLAND	ATTACHMENT 14 PASSIVE VENT DETAILS
DATE: 07/2011 FILE: 0647-01-11	DRAWN BY: VRS DESIGN BY: SR	NO.	DATE	REVISIONS DESCRIPTION	CASTLE DRIVE LANDFILL DALLAS COUNTY, TEXAS
CAD: H3-PV DETAILS.DWG	REVIEWED BY: MKS	NO.	UNIE	DESCRIPTION	Weaver Boos Consultants
REUSE OF E	PRATED HEREIN, AS AN INSTRUMENT OF				TBPE REGISTRATION NO. F-3727
PROFESSIONAL SERVICE, IS THE PROPERTY OF SOUTHWEST AND IS NOT TO BE USED IN WE AUTHORIZATION OF WEAVER BOOS CONSULTA	HOLE OR IN PART, WITHOUT THE WRITTEN				CHICAGO, IL FORT WORTH, TX GRIFTITH, IN MAPPENULE, IL FORT WORTH, TX SOUTH BEIND, IN COLUMBUS, OH (817) 735–9770 SPRINGFELD, IL DEDVER, CO

ATTACHMENT H4 PASSIVE VENT LITHOLOGIC LOGS

WEAVER

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COMBULICARIES

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KEY TO GEOLOGIC LOGS CASTLE DRIVE LANDFILL 2011 PASSIVE LFG VENT INSTALLATIONS

SAMPLING METHODS:

Symbol:

S C P

Sampling Method: Thin Walled Shelby Tube Split Spoon Barrel

Double Tube Core Barrel Pitcher Barrel Auger Sample Rotary Wash Sample

RELATIVE DENSITY OF COARSE GRAINED SOILS:

Penetration Resistance:

(Blows/Foot) 0 - 4 4 - 10 10 - 3030 - 50

Over 50

Relative Density: Very Loose Loose Medium Dense Dense Very Dense

CONSISTENCY OF FINE-GRAINED SOILS:

Unconfined Compressive Strength: (Tons per Square Foot)

Less than 0.25 0.25 to 0.50 0.50 to 1.00 1.00 to 2.00 2.00 to 4.00 4.00 and Up

Consistency:

Very Soft

Very Stiff

Soft:

Firm

Stiff

Hard

Field Criteria:

Squeezes between fingers when fist is closed.

Easily molded by fingers. Molded by strong pressure of fingers.

Imprinted very slightly by finger pressure.

Cannot imprint with finger pressure / can penetrate w/ pencil.

Imprinted only slightly by pencil point.

MOISTURE:

Description:

Moist Wet

Absence of moisture. Damp, but no visible water. Very damp to visible water.

PLASTICITY

Criteria: Description: Non-plastic

Low Medium High

1/8" Thread Can't Be Rolled.

1/8" Thread Difficult to Roll / No Lump. 1/8" Thread Easy to Roll / No reroll / No Lump. Long time to 1/8" Thread at Plastic Limit.

STRATIFICATION:

Description: Massive Bedding Very Thickly Bedded Thickly Bedded Moderately Bedded Thinly Bedded Very Thinly Bedded Laminated

Thickness: > 10 ft. 3 ft. to 10 ft. 1 ft. to 3 ft. 3 in. to 1 ft. 1.2 in. to 3 in. 3/8 in. to 1.2 in. < 3/8 in.

SEDIMENTARY TEXTURES:

Description: Slickensides

Fractures Blocky Brecciated

Fissures Weathered Calcareous Definition: Polished fracture surface seen in stiff clay. Failure plane, commonly with mineralization. Angular lumps that resist further breakdown.

Angular fragments commonly due to faulting Cracks from shrinkage and frost with definite fracture plane

Discoloration and/or diminished texture. Contains calcium carbonate, commonly as cement.

HCL REACTION:

Description:

None Weak Strong Definition:

No reaction with HCL. Effervesces slightly with HCL. Effervesces greatly with HCL.

ANGULARITY OF COARSE GRAINED SOILS:

Description: Angular Subangular Subrounded

Rounded

Criteria: (coarse sand and larger only) Sharp edges / relatively plane sides / unpolished surfaces.

Similar to angular with rounded edges. Well-rounded edges with plane sides. Smoothly curved sides with no edges.

ADDITIONAL COMPONENT TERMS:

Description: Trace Few Little

Some

Mostly

Percentage of total: Present but < 5 % 5 to 10 % 15 to 25 % 30 to 45 % 50 to 100 %

SHAPE OF GRAVEL AND LARGER PARTICLES:

Description:

Criteria:

Flat Elongated Particles with width/thickness >3. Particles with length/width >3.

Flat and elongated Particles meet criteria for flat and elongated.

CEMENTATION OF COARSE GRAINED SOILS:

Description:

Weak Moderate Strong

Crumbles or breaks with handling or little finger pressure. Crumbles or breaks with considerable finger pressure. Will not crumble or break with finger pressure.

WHEN WHERE

EQOS

Consultants

EGOTOTE SET

KEY TO GEOLOGIC LOGS CASTLE DRIVE LANDFILL 2011 PASSIVE LFG VENT INSTALLATIONS

SUBSURFACE CONDITIONS:

The lithologic log soil and rock descriptions are based on visual field observations and, where indicated on the logs, geotechnical testing. The geotechnical classifications are based only on the samples analyzed. Where no geotechnical classification or analysis is indicated, the stratum classifications are based on visual field classifications only. The lithologic unit contacts shown on the logs indicate approximate boundaries between materials. The actual contacts may be gradational and vary between borehole locations. The visual/manual procedures used for the field classification of soils were performed in general accordance with ASTM Standard D-2488. Soil classifications based on geotechnical laboratory results were performed in general accordance with ASTM Standard D-2487. Water level observations were made at the time of drilling and at subsequent times, as indicated. Future water levels may vary significantly from those indicated due to climatic factors, construction activity, or other factors.

LITHOLOGIC UNITS





CLAY FILL



WOOD WASTE AND CLAY FILL

WELL MATERIALS



Bentonite Pellet Annular Seal



Washed Pea Gravel Bottom Filter Pack



Concrete Surface Seal



Washed Pea Gravel Filter Pack



Slotted Well Screen Interval

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		uthw		Project No: 647-01-36-42-04		Field	Tests			Labor	ratory	Tests		_	
				Boring Start Date: 5/24/2011 Northing: 7028399.2 Boring End Date: 5/24/2011 Easting: 2558192.9 Ground Elevation: 535.4 Remarks: Boring advanced with 8.25" hollow stem augers from 0' to 5' and reamed with 8" air rotary tricone bit from 5' to 48'. Cuttings continuously sampled. Static water level measured on 6/16/11.	,	Hand Penetrometer Test (tsf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	y (pcf)	it	it	ndex	Permeability (cm/s)	
	Depth (ft)	Samples	Graphic Log	 ∑ = Water Level at Time of Drilling: Not Observed ∑ = Static Water Level: 520.7 ft-msl 	FT	and Pene	enetration	ercent Pa	srcent Mo	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	ermeabil	Well Detail
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			Boring Start Date: 5/20/2011 Northing: 7028106.9 Boring End Date: 5/20/2011 Easting: 2557894.9 Ground Elevation: 530.4	,	Test (tsf)	Æ	. 200	ontent						
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	uthw		Project No: 647-01-36-42-04	Fiel	d Tests			Labor	atory '	Tests			Ľ
	ia a	ьh	Boring Start Date: 6/3/2011 Northing: 7027965.2 Boring End Date: 6/3/2011 Easting: 2557754.0 Ground Elevation: 529.2 Remarks: Boring advanced with 8.25° hollow stem augers from 0' to 5' and reamed with 8" air rotary tricone bit from 5' to 40'. Cuttings continuously sampled. Static water level measured on 6/16/11.	Hand Penetrometer Test (tsf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	ty (pcf)	ıit	ait	пдех	Permeability (cm/s)	11
Depth (ff)	Samples	Graphic Log	 ⊋ = Water Level at Time of Drilling: 492.2 ft-msl 里 = Static Water Level: 510.0 ft-msl 	nd Pene	retration	rcent Pa	cent M	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	rmeabil	Well Detail
Dep	San	Ga	Description FT MSL	H	<u>Б</u>	Pe	Pe	ă	ڐ	M	4	Pe	<u>₩</u>
			CLAY, silty, dark brown, moist, stiff to very stiff, massive, plastic with trace rootlets and organics.					ALLES AND THE PROPERTY OF THE				527. 525.	8
5 - -			- clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcareous nodules and ironstones below 6'.				The state of the s		The state of the s			523.	95 95 95 95 95 95 95 95 95 95 95 95 95 9
10 -					***************************************						The state of the s		89989898 898989898
- - 15 - -	A construction of the cons												98988888989
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40			- clay becomes wet at 40'.	1,2								45	0.2
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Co	iver I nsult	ants	LOG OF BOREHOLE: PV-10 Project Title: 2011 Castle Drive Passive LFG Vent Installations		Geo Drill	logist: ler:		.E nbelt					Page 1 o	f 1
	LLC uthw	9	Project No: 647-01-36-42-04		Field	Tests			Labor	ratory	Tests	<u>_</u>		
Depth (ft)	Samples	Graphic Log	Boring Start Date: 5/31/2011 Northing: 7027876.2 Boring End Date: 5/31/2011 Easting: 2557666.3 Ground Elevation: 528.8 Remarks: Boring advanced with 8.25" hollow stem augers from to 5' and reamed with 8" air rotary tricone bit from 5' to 41'. Cuttings continuously sampled. Static water level measured on 6/16/11. We are Level at Time of Drilling: 490.8 ft-msl Static Water Level: 509.6 ft-msl	o	Hand Penetrometer Test (tsf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Permeability (cm/s)	Well Detail
Dep	Sam	Gra	Description	FT MSL	Ha	Per	Pe	Per	<u>p</u>	Liç	Pla	E E	Pe	×
10 - 15 - 30 - 40 - 45 -			CLAY, silty, dark brown, moist, stiff to very stiff; massive, plastic with trace rootlets and organics. - clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcareous nodules and ironstones below 6'. - clay becomes wet at 39'.	487.8									526. 524. 522.	$\frac{1}{2}$
	VDIC	gree's	2011 WEAVER BOOS CONSULTANTS, LLC-SOUTHWEST. A	 1.I D	IGHT	SBES	ERV	ED		***************************************			FiGUI	RE 9

	aver I nsulta LLC	nts	LOG OF BOREHOLE: PV-11 Project Title: 2011 Castle Drive Passive LFG Vent Installations		Geo Dril	logist: ler:		E ibelt					Page 1 c	f1
So	outhw		Project No: 647-01-36-42-04		Field	Tests			Labor	atory '	Tests			
			Boring Start Date: 5/31/2011 Northing: 7027784.2 Boring End Date: 5/31/2011 Easting: 2557582.4 Ground Elevation: 528.1	v	Test (tsf)		200	ntent						
		50	Remarks: Boring advanced with 8.25" hollow stem augers from 0 to 5' and reamed with 8" air rotary tricone bit from 5' to 41'. Cuttings continuously sampled. Static water level measured on 6/16/11.))	Hand Penetrometer Test (1sf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	imit	imit	Plasticity Index	Permeability (cm/s)	tail
Depth (ft)	Samples	Graphic Log	▼ = Static Water Level: 505.9 ft-msl		nd Pe	netrati	rcent	rcent]	y Den	Liquid Limit	Plastic Limit	asticit	rmeat	Well Detail
Dei	San	8	Description	FT MSL	Ha	Per	Pe	Pe	ሷ	Lik	PI	温	Pe	≱ সে স
			CLAY, silty, dark brown, moist, stiff to very stiff, massive, plastic with trace rootlets and organics.										526	
-													320	
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-			- clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcareous nodules and ironstones below 6'.											
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١,,			- clay becomes wet at 39'.										48	
- 40 ·				487.1	<u> </u>	-	-		-	-		-	48	7.1
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	LLC	3	Project Title: 2011 Castle Drive Passive LFG Vent Installations		d Tests	Γ		Labo	ratory '	T'ests			
S	outhy	vest	Project No: 647-01-36-42-04 Boring Start Date: 5/19/2011 Northing: 7027765.4 Boring End Date: 5/19/2011 Easting: 2557566.1 Ground Elevation: 527.9		1 Tests	0	ınt	LADO	atory	10315			
0		Log	Remarks: Boring advanced with 8.25" hollow stem augers from 0' to 5' and reamed with 8" air rotary tricone bit from 5' to 41'. Cuttings continuously sampled. Static water level measured on 6/16/11. \(\nabla = \text{Water Level at Time of Drilling: 487.9 ft-ms1} \)	Hand Penetrometer Test (tsf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	Limit	Limit	Plasticity Index	Permeability (cm/s)	etail
Depth (ft)	Samples	Graphic Log	▼ = Static Water Level: 505.2 ft-msl	iand Pe	enetra	Percent	ercent	Ory De	Liquid Limit	Plastic Limit	Plastici	Permea	Well Detail
Ā	S	0//	CLAV silty dark brown, moist, stiff to very stiff, massive,	p#4	P4) 144		 	H				8
- 5	, <u> </u>		plastic with trace rootlets and organics. - clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcareous nodules and ironstones below 7.		Andrew Company of the			A COLUMN A C				525, 523. 521.	\$\$9\$\$9\$
- 10			stains, very fine calcareous nodules and nonsiones sellow 7.									Land and a second	<u> </u>
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6/23/2014 9:07:21 AM) - - -		- clay becomes wet at 40'.	.9								48	Pood
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Southwest Project No: 647-01-36-42-04 Boraing Stand Date: 59/24/2011 Northing: 7027745.2 Boraing Stand Date: 59/24/2011 Easting: 2557551.6 Ground Elevation: 527-8 Remarks: Boring advanced with 8.25° hollow stem augers from 0° to 5° and reamed with 8° dir rotary through Mr from 5′ to 41°. Cartings continuously sampled. Static water level continuously sampled. Static water level static water level of 41°. Cartings continuously sampled. Static water level of 41°. Cartings con	E	aver l insult	ants	LOG OF BOREHOLE: PV-13 Project Title: 2011 Castle Drive Passive LFG Vent Installations		Geo Dril	logist: ler:	AK Sur	E ibelt					Page 1	of 1
Borring End Date: \$27.8011 Easting: 2557551.6 Ground Elevation: \$27.8 Remarks: Borring advanced with 8.25' hollow stem augers from 0 to 5' and remarked with 8.25' hollow stem augers from 0 to 5' and remarked with 8.25' hollow stem augers from 0 to 5' and remarked with 8.25' hollow stem augers from 0 to 5' and remarked on 6/16/11. 25	S			Project No: 647-01-36-42-04		Field	Tests			Labo	ratory '	Tests		T	
CLAY, sity, dark brown, moist, stiff to very stiff, massive, plastic with trace roodlets and organics. - clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcureous nodules and ironstones below 5'.				Boring End Date: 5/25/2011 Easting: 2557551.6 Ground Elevation: 527.8		est (tsf)		000	Itent					ALALAMAN MANAGEMENT TO THE	
CLAY, sifty, dark brown, moist, stiff to very stiff, massive, plastic with trace rootlets and organics. 5 clay becomes tran with no organics or rootlets, with trace iron stains, very fine calcureous nodules and ironstones below 5'. 10			80	measured on 6/16/11.		etrometer T	n Blows/Ft	assing No. 2	foisture Con	ity (pcf)	mit	mit	. Index	llity (cm/s)	ail
CLAY, sitty, dark brown, moist, stiff to very stiff, massive, plastic with trace rootlets and organics. - clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcareous nodules and ironstones below 5'.	pth (ft)	mples	aphic L	▼ = Static Water Level: 504.4 ft-msl	er	and Pen	enetratio	ercent F	ercent N	ry Dens	iquid Li	lastic L	lasticity	ermeab	vell Det
plastic with trace rootlets and organics. - clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcareous nodules and ironstones below 5'.	ದ್	Sau	5	Description	isl	Ħ	P	<u> </u>	<u>a</u>	<u> </u>	ㅋ	<u>a</u>	<u>-</u>	<u>e</u> ,	প্ৰ ত
- clay becomes tan with no organies or modules, with trace iron stains, very fine calcureous nodules and ironsfones below 5'.				CLAY, silty, dark brown, moist, stiff to very stiff, massive, plastic with trace rootlets and organics.										52:	5.3 8 8 8
- 20	- 5			- clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcareous nodules and ironstones below 5'.			The state of the s								85.55 55.55
- 20	- 10 -														
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	30	1								and the second s					\$05 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00
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- clay becomes wet at 40'.	AM											***************************************		4	2 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
102 HT 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	23/2011 9:07:22		1	- clay becomes wet at 40°.	186.	8									86.8
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	ısulta LLC		LOG OF BOREHOLE: PV-14 Project Title: 2011 Castle Drive Passive LFG Vent Installations		Dril		Sur	belt					Page 1 o	ļ
So	uthw	est	Project No: 647-01-36-42-04	\perp	Field	Tests			Labor	ratory '	Tests			<u> </u>
			Boring Start Date: 5/19/2011 Northing: 7027702.6 Boring End Date: 5/19/2011 Easting: 2557522.7 Ground Elevation: 527.3		est (tsf)		200	ntent						
		30	Remarks: Boring advanced with 8.25" hollow stem augers from 0' to 5' and reamed with 8" air rotary tricone bit from 5' to 41'. Cuttings continuously sampled. Static water level measured on 6/16/11.		Hand Penetrometer Test (tsf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	imit	imit	/ Index	Permeability (cm/s)	Bil
Deput (11)	Samples	Graphic Log	 ∑ = Water Level at Time of Drilling: 488.3 ft-msl ∑ = Static Water Level: 503.6 ft-msl 		and Per	netratio	rcent F	rcent N	ry Dens	Liquid Limit	Plastic Limit	Plasticity Index	ermeab	Well Detail
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			CLAY, silty, dark brown, moist, stiff to very stiff, massive, plastic with trace rootlets and organics.										525.	,
1													523.	388 X
5			- clay becomes tan with no organics or rootlets, with trace iron stains, very fine calcareous nodules and ironstones below 5'.										521.	25.05 Kes
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40 -	-		- clay becomes wet at 39'.	86.3	3								48	17.3 - 8 16.3 - 1
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Sou		est	Project No: 647-01-36-42-04		Field	Tests			Labor	atory '	rests .		<u></u>	ļ
			Boring Start Date: 5/16/2011 Northing: 7027658.3 Boring End Date: 5/16/2011 Easting: 2557205.9 Ground Elevation: 525.9 Remarks: Boring advanced with 8.25" hollow stem augers from	0'	Test (tsf)	<u>.</u>	. 200	ontent						
	s	Graphíc Log	to 32'. Borehole was continuously sampled with 5' CME split barrels. Static water level measured on 6/16/11. We water Level at Time of Drilling: Not Observed	Ĭ	Hand Penetrometer Test (tsf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Permeability (cm/s)	Well Detail
(iii) iii daa	Samples	raphí	▼ = Static Water Level: 498.3 ft-msl	FT	land	enetr	erce	erce	Dry D	.iquiç	Plastic	Plasti	Ретт	Well
1	Sa	Ö XXX	Description (*I AV (FILL) light gray and tan mottled, moist, very stiff,	MSL	<u> 144</u>	<u> </u>	124	-		-	-		1	
			CLAY (FILL), light gray and tan mottled, moist, very stiff, plastic with few fine gravel and trace fine sand and rootlets.						***************************************	A A A A A A A A A A A A A A A A A A A			521	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
				£10 /									518	187
			FILL (WOOD WASTE), dark brown, dry with low decomposition and interbedded tan clay.	518.4										28.65
) -		24	decomposition and interbedded tan clay.											Sego K
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0 -			CLAY (FILL), tan, moist, very stiff, plastic and homogenous.										49	43 SC +
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S	outhw	est	Project No: 647-01-36-42-04		Field	Tests			Labor	atory	Tests			
			Boring Start Date: 5/16/2011 Northing: 7027526.9 Boring End Date: 5/16/2011 Easting: 2557074.6 Ground Elevation: 521.9 Remarks: Boring advanced with 8.25" hollow stem augers from 0' to 25'. Borehole was continuously sampled with 5' CME split barrels. Static water level measured on		Hand Penetrometer Test (tsf)	ws/Ft	No. 200	e Content	z)			HE STRUCTURE AV P.	m/s)	
Depth (ff)	Samples	Graphic Log	6/16/11.		nd Penetrom	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Permeability (cm/s)	Well Detail
Dep	San	g.	Description N	FT ISL	Ha	Per	Pel	Per	Ų,	Lig	Pla	P12		*
- 5 -			CLAY (FILL), light gray and tan mottled, moist, very stiff, plastic with few fine gravel and trace fine sand and rootlets.										517.9 514.9	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
]	\otimes		2.9										
- 10 ·		がらな	FILL (WOOD WASTE), black and dark brown, moist to wet with high decomposition and interbedded tan clay.											
15			- fill becomes wet at 17'.						- ALEMAN AND AND AND AND AND AND AND AND AND A					
20				20.0					Newson Print, and the					
-			CLAY (FILL), tan, wet, very stiff, plastic and homogenous.	98.9									lat é	
- 25				96.9							-1-11		497.5 496.5	, 600 c
- 30					No. A.					AND AND ADDRESS OF THE PARTY OF				
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5	outhv	vest	Project No: 647-01-36-42-04	Fiel	d Tests			Labora	itory 7	ests	· · · · · · · · · · · · · · · · · · ·		
Depth (ft)	Samples	Graphic Log	Boring Start Date: 5/17/2011 Northing: 7027396.0 Boring End Date: 5/17/2011 Easting: 2556943.1 Ground Elevation: 522.2 Remarks: Boring advanced with 8.25" hollow stem augers from 0' to 23'. Borehole was continuously sampled with 5' CME split barrels. Static water level measured on 6/16/11. \[\to \text{ Water Level at Time of Drilling: 503.2 ft-msl } \] \[\to \text{ Static Water Level: 509.8 ft-msl} \]	Hand Penetrometer Test (tst)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	Liquid Limit	Plastic Límit	Plasticity Index	Permeability (cm/s)	Well Detail
Dep	San	B	Description FT MSL	Han	Per	Per	Per	Q	Liq	Pla	Pla	Pen	ž
5	3		CLAY (FILL), light gray and tan mottled, moist, very stiff, plastic with few fine gravel and trace fine sand and rootlets.									518.2 515.2	₽₹₽₽₹₽₽₹₽₽₹₽₽₹₽₽₹₽
- 10 - -			FILL (WOOD WASTE), black and dark brown, moist to wet with high decomposition and interbedded tan clay.										
- - 15 - -						- Lamantina de la constanta de							\$~\$~\$~\$~\$ \$ \$ \$ \$ \$ \$ \$
- 20			- fill becomes wet at 19'.	2									Steel Steel
	1		CLAY (FILL), tan, wet, very stiff, plastic and homogenous. 499.	2								.500;2 499,2	
- 25 - - - - 30					Volument and the second	And the state of t	TATATA PROPRIATE AND THE PROPRIET AND THE PROPRIATE AND THE PROPRIET AND THE PROPRIATE AND THE PROPRIATE AND THE PROPRIET AND THE PR						THE PROPERTY OF THE PROPERTY O
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			Boring Start Date: 5/18/2011 Northing: 7028192.5 Boring End Date: 5/18/2011 Easting: 2557192.2 Ground Elevation: 511.8				00	ent						
		90.	Remarks: Boring advanced with 8.25" hollow stem augers from to 5' and reamed with 8" air rotary tricone bit from 5' 25'. Cuttings continuously sampled. Static water leve measured on 6/16/11.	to l	Hand Penetrometer Test (tsf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	mit	imit	Plasticity Index	Permeability (cm/s)	**
Depth (ft)	Samples	Graphic Log	 ∑ = Water Level at Time of Drilling: Not Observed ∑ = Static Water Level: 497.2 ft-msl 		nd Per	netratio	rcent F	rcent N	у Den	Liquid Limit	Plastic Limit	asticity	rmeab	
å 	Saı	5	Description CLAY, silty, dark brown, moist, stiff to very stiff, massive,	FT MSL	_H_	Pe	Pe	P.	Ä	Ë	J.J.	Pl	Pe	X
			plastic with trace rootlets and organics.				•						\$09.8	
-			- clay contains no organics or rootlets below 3'.										507.8	X X
5 -							·							89,89
													505,8	825849
														39000
10														02800
-														800800
			- clay becomes tan and moist at 12'.											-830-K
15 -														8558
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	<u> </u>		011 WEAVER BOOS CONSULTANTS, LLC-SOUTHWEST. A		<u> </u>		<u>L</u>	<u> </u>		<u> </u>		<u> </u>	FIGUR	

Southwest Project No. 647-01-36-42-04 Field Tests Laboratory Tests Boring Stard Date: 6/3/2011 Easting: 2557314.2 Ground Elevation: 516-9 Remarks: Boring advanced with 8.25' hollow stem augers from 0' to 3' and resured with 8.25' hollow stem augers from 0' 20'. Cuttings continuously sampled. Static water level negative of 5' and resured with 8.25' hollow stem augers from 0' to 3' and		aver I nsulta LLC	ints	LOG OF BOREHOLE: PV-19 Project Title: 2011 Castle Drive Passive LFG Vent Installations		Geol Drill	logist: er:	AK Sur	E ibelt					Page 1 o	f I
Boring End Date: 6/3/2011 Easting: 2557314.2 Ground filewation: 516.9 Remarks: Boring advanced with £ 25" bollow stem augers from 0 to 5" and remared with £ 25" bollow stem augers from 0 to 5" and remared with £ 25" bollow stem augers from 0 to 5" and remared with £ 25" bollow stem augers from 0 to 5" and remared with £ 25" bollow stem augers from 0 to 200. Cathings continuously sampled. Static water level measured on 6" for 1". 200. Cathings continuously sampled. Static water level measured on 6" for 1". 21	Sc			Project No: 647-01-36-42-04		Field	Tests			Labor	atory	Tests		·····	
CLAY, sity, dark brown, moist, stiff to very stiff, massive, plastic with trace rootlets and organics. - clay contains no organics or rootlets below 3'. - clay becomes tan and moist at 12'. - clay becomes tan and moist at 12'. - 25 - 25 - 30 - 30 - 35 - 35 - 35 - 35 - 35 - 3				Boring End Date: 6/3/2011 Easting: 2557314.2 Ground Elevation: 516.9		est (tsf)		200	ntent			And the second s			
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plastic with trace rootlets and organics clay contains no organics or rootlets below 3'. - clay becomes tan and moist at 12'. - 15 - 20 - 20 - 30 - 35 - 35 - 35 - 35 - 35 - 35 - 35 - 35	Ä	Sar	5	Description F1 MS	L	Ha	Pe	Pe	Pe	Ā	Ë	Ā	PI	Pe	≱ সে স
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1	aver I onsulta LLC	ants	LOG OF BOREHOLE: PV-20 Project Title: 2011 Castle Drive Passive LFG Vent Installations		Geo Dril	logist: ler:		E ibelt					Page 1 o	f I
S	outhw		Project No: 647-01-36-42-04		Field	Tests			Labor	ratory	Tests			
			Boring Start Date: 5/17/2011 Northing: 7028347.1 Boring End Date: 5/18/2011 Easting: 2557435.1 Ground Elevation: 518.1		est (tst)		200	itent						
		3 6	Remarks: Boring advanced with 8.25" hollow stem augers from to 5' and reamed with 8" air rotary tricone bit from 5' 17'. Cuttings continuously sampled. Static water leve measured on 6/16/11.	ı 0' to l	Hand Penetrometer Test (tsf)	Penetration Blows/Ft	Percent Passing No. 200	Percent Moisture Content	Dry Density (pcf)	m;	mìt	Index	Permeability (cm/s)	ail
Depth (ft)	Samples	Graphic Log	♥ = Water Level at Time of Drilling: 504.1 ft-msl ▼ = Static Water Level: 509.1 ft-msl	T see	and Pen	netratio	rcent P	rcent N	ry Dens	Liquid Limit	Plastic Limit	Plasticity Index	ermeabi	Well Detail
Del	Sar	B	Description	FT MSL	置	Pe	Pe	P,	Ā	Ä	죠	A.	P.	\ \d \X
			CLAY, silty, dark brown, moist, stiff to very stiff, massive, plastic with trace rootlets and organics.										516.	XXXX
- 5 -			- clay contains no organics or rootlets below 3'.						- Anna Anna Anna Anna Anna Anna Anna Ann				S14.	N X X X X X X X X X X X X X X X X X X X
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ATTACHMENT H5 DRILLER'S PASSIVE VENT COMPLETION REPORTS

Owner:

City of Garland

Owner Well #:

PV-4

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Elevation:

Dallas No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/24/2011

Completed: 5/24/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 48 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion: Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 48 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal:

Company

Sunbelt Industrial Services

Information:

Fort Worth, TX 76107

Driller License

Number:

Licensed Well Driller Signature: Mark W. Hickox

Registered Driller

No Data

Apprentice Signature:

Apprentice

No Data

Registration Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #257283) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0-48' Clay

Dia. New/Used Type Setting From/To 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-47' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-5

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Elevation:

Dallas

GPS Brand Used:

Google Earth

Type of Work:

No Data

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/24/2011

Completed: 5/24/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 45 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 45 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data

Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Fort Worth, TX 76107

Driller License

58780

Number:

Licensed Well Driller Signature: Mark W. Hickox

Registered Driller

Apprentice Signature:

No Data

Apprentice

No Data

Registration Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #257281) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC, & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-45' Clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-44' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-6

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Elevation:

Dallas

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/23/2011

Completed: 5/23/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 46 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 46 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Fort Worth, TX 76107

Driller License

58780

Number: Licensed Well

Mark W. Hickox

Driller Signature:

Registered Driller Apprentice Signature: No Data

Apprentice

No Data

Registration Number: NO Date

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #257279) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-46' Clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-45' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-7

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Dallas

Elevation:

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/20/2011

Completed: 5/20/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 43 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 43 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Сотралу

Sunbelt Industrial Services

Information:

Driller License

58780

Number:

Licensed Well Driller Signature: Mark W. Hickox

Registered Driller

Apprentice Signature:

No Data

Apprentice Registration No Data

Number:

No Data

Comments:

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #257276) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-43' clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-42' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-8

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive Garland, TX 75040

Latitude:

32° 55' 50" N

Well County:

Dallas

Longitude:

096° 35' 00" W

Elevation:

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/20/2011

Completed: 5/20/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 43 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 43 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information: 2415 Cullen St

Driller License Number:

58780

Licensed Well

Mark W. Hickox

Driller Signature: Registered Driller

Apprentice Signature:

No Data

Apprentice

No Data

Registration Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257275) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0-43' Clay

Dia. New/Used Type Setting From/To 4" New PVC Riser 0-6' SCH 40

4" New Screen 6-42' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-9

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Elevation:

Dallas

GPS Brand Used:

Google Earth

No Data

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 6/3/2011 Completed: 6/3/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 40 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 40 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company Information: Sunbelt Industrial Services

Page 2 of 2

Well Report: Tracking #:257288

Fort Worth, TX 76107

Driller License

58780

Number:

Licensed Well Driller Signature: Mark W. Hickox

Registered Driller

No Data

Apprentice Signature:

Apprentice Registration

No Data

Registration Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257288) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0-40' Clay

Dia. New/Used Type Setting From/To 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-39' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-10

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive Garland, TX 75040 Latitude:

32° 55' 50" N

Well County:

Longitude:

096° 35' 00" W

Elevation:

Dallas

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/31/2011

Completed: 5/31/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 41 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 41 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Page 2 of 2

Well Report: Tracking #:257286

Fort Worth, TX 76107

Driller License

58780

Number:

Mark W. Hickox

Licensed Well Driller Signature:

Registered Driller Apprentice

No Data

Signature:

No Data

Apprentice Registration

Number:

No Data Comments:

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #257286) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0-41' Clay

Dia. New/Used Setting From/To 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-40' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-11

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Dallas

Elevation:

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/31/2011

Completed: 5/31/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 41 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 41 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company Information: Sunbelt Industrial Services

Well Report: Tracking #:257287

Fort Worth, TX 76107

Driller License

58780

Number:

Licensed Well

Mark W. Hickox

Driller Signature: Registered Driller

No Data

Apprentice

Signature:

No Data

Apprentice Registration

Number: Comments:

Amended 6/30/11 Ref.# 9240

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #257287) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0-41' Clay

Type Setting From/To Dia, New/Used 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-40' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-12

Address:

3637 Castle Drive Garland, TX 75040

Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Well County.

Dallas

Longitudo.

Elevation:

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/18/2011

Completed: 5/19/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 41 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material)
2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material)
3rd Interval: From 4 ft to 41 ft with 6 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: **No Data** Depth of Strata: **No Data**

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Driller License Number: 58780

Licensed Well Driller Signature:

Mark W. Hickox

Registered Driller Apprentice No Data

Signature:

Apprentice Registration No Data

Number: Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257273) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-41' Clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-40' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-13

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Dallas

GPS Brand Used:

Elevation:

No Data

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/24/2011

Completed: 5/24/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 41 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd interval: From 4 ft to 41 ft with 12 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Driller License

Number:

58780

Licensed Well Driller Signature: Mark W. Hickox

Registered Driller

No Data

Apprentice Signature:

Apprentice

No Data

Registration Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257284) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

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CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-41' Clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40

4" New Screen 6-40' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-14

Address:

3637 Castle Drive

Garland , TX 75040

Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Elevation:

Dallas

000 B ...

Google Earth

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/19/2011

Completed: 5/19/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 41 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material)
2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material)
3rd Interval: From 4 ft to 41 ft with 6 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion:

Surface Sleeve Installed

Water Level:

Static level: No Data

Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information: 2415 Cullen St

Driller License Number: 58780

Licensed Well Driller Signature:

Mark W. Hickox

Registered Driller

No Data

Apprentice Signature:

Apprentice Registration No Data

Number:
Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257274) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-41' Clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-40' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-15

Address:

3637 Castle Drive Garland, TX 75040

Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Dallas

Elevation:

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/16/2011

Completed: 5/16/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 32 ft

Drilling Method:

Hollow Stem Auger

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 4 ft with 2 concrete (#sacks and material) 2nd Interval: From 4 ft to 32 ft with 8 Pea Gravel (#sacks and material)

3rd Interval: No Data Method Used: Gravity Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: No Data

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Driller License Number:

58780

Licensed Well

Mark W. Hickox

Driller Signature:

Registered Driller Apprentice

No Data

Signature:

No Data

Apprentice Registration Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257264) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 **Austin, TX 78711** (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-7' Clay

7-30' Trash 30-32' Clay

Dia. New/Used Type 4" New PVC Riser 0-7 SCH 40

4" New Screen 7-31' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-16

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Elevation:

Dallas

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/16/2011

Completed: 5/16/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 25 ft

Drilling Method:

Hollow Stem Auger

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st interval: From 0 ft to (No Data) ft with 2 concrete (#sacks and material) 2nd Interval: From 4 ft to 25 ft with 6 Pea Gravel (#sacks and material)

3rd Interval: No Data Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: No Data

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Driller License Number: 58780

Mark W. Hickox

Licensed Well Driller Signature:

.

Registered Driller Apprentice No Data

Signature:

Apprentice Registration No Data

Registration Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257266) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-9' Clay

9-23' Trash 23-25' Clay Dia. New/Used Type 4" New PVC Riser 0-7' SCH 40

4" New Screen 7-24' 0.010 Slot

Owner: Address: City of Garland

3637 Castle Drive

Garland, TX 75040

Well Location:

3637 Castle Drive

Garland, TX 75040

Well County:

Dallas

Elevation: No Data

Owner Well #:

Grid #:

Latitude:

Longitude:

096° 35' 00" W

32° 55' 50" N

PV-17

33-04-4

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/17/2011

Completed: 5/17/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 23 ft

Drilling Method:

Hollow Stem Auger

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 4 ft with 2 concrete (#sacks and material) 2nd Interval: From 4 ft to 23 ft with 6 Pea Gravel (#sacks and material)

3rd Interval: No Data Method Used: Gravity Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: No Data

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Driller License

58780

Number:

Licensed Well Driller Signature: Mark W. Hickox

Registered Driller

Apprentice Signature:

No Data

Apprentice Registration No Data

Registration
Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257268) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description 0-10' Clay 10-21' Trash 21-23' Clay Dia. New/Used Type Setting From/To 4" New PVC Riser 0-7' SCH 40 4" New Screen 7-22' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-18

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Elevetion

Dallas

•

Elevation:

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/18/2011

Completed: 5/18/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 25 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material)
2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material)
3rd Interval: From 4 ft to 25 ft with 10 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company

Sunbelt Industrial Services

Information:

Driller License

58780

Number:

Licensed Well Driller Signature:

Mark W. Hickox

Registered Driller

No Data

Apprentice Signature:

Apprentice Registration No Data

Registration Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #257290) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

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CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-25' Clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-24' 0.010 Slot

Owner:

City of Garland

Owner Well #:

PV-19

Address:

3637 Castle Drive

Garland, TX 75040

33-04-4

Well Location:

3637 Castle Drive

Grid #: Latitude:

32° 55′ 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Elevation:

Dallas No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 6/3/2011

Completed: 6/3/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 20 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Gravel Pack Size: Completion:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 20 ft with 6 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

No Data

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company Information: Sunbelt Industrial Services

Driller License

58780

Number:

Licensed Well Driller Signature: Mark W. Hickox

Registered Driller

Apprentice Signature:

No Data

Apprentice Registration No Data

Number:

Comments:

No Data

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #257270) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-20' Clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-19' 0.010 Slot Well Report: Tracking #:257272

STATE OF TEXAS WELL REPORT for Tracking #257272

Owner:

City of Garland

Owner Well #:

PV-20

Address:

3637 Castle Drive Garland, TX 75040 Grid #:

33-04-4

Well Location:

3637 Castle Drive

Latitude:

32° 55' 50" N

Well County:

Garland, TX 75040

Longitude:

096° 35' 00" W

Dallas

Elevation:

No Data

GPS Brand Used:

Google Earth

Type of Work:

New Well

Proposed Use:

Monitor

Drilling Date:

Started: 5/17/2011

Completed: 5/18/2011

Diameter of Hole:

Diameter: 8.25 in From Surface To 17 ft

Drilling Method:

Air Rotary

Borehole

Gravel Packed From: (No Data) ft to (No Data) ft

Completion:

Gravel Pack Size:

Annular Seal Data:

1st Interval: From 0 ft to 2 ft with 1 concrete (#sacks and material) 2nd Interval: From 2 ft to 4 ft with 1 Bentonite (#sacks and material) 3rd Interval: From 4 ft to 17 ft with 6 Pea Gravel (#sacks and material)

Method Used: Gravity

Cemented By: Mark W. Hickox

Distance to Septic Field or other Concentrated Contamination: No Data

Distance to Property Line: No Data Method of Verification: No Data Approved by Variance: No Data

Surface Completion: Surface Sleeve Installed

Water Level:

Static level: No Data Artesian flow: No Data

Packers:

Plugging Info:

Casing or Cement/Bentonite left in well: No Data

Type Of Pump:

No Data

Well Tests:

No Data

Water Quality:

Type of Water: No Data

Depth of Strata: No Data

Chemical Analysis Made: No Data

Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

Certification Data:

The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company Information: Sunbelt Industrial Services

Driller License

58780

Number:

Licensed Well Driller Signature: Mark W. Hickox

Registered Driller

Apprentice Signature:

No Data

Apprentice Registration No Data

Number:

Comments:

Amended 6/30/11 Ref.# 9241

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #257272) on your written request.

Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 (512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

Setting From/To

From (ft) To (ft) Description 0-17' Clay

Dia. New/Used Type 4" New PVC Riser 0-6' SCH 40 4" New Screen 6-16' 0.010 Slot

ATTACHMENT 2 LANDOWNERS LIST AND MAP

PROPERTY OWNERS AND MINERAL RIGHTS OWNERS LIST*

1.	CITY OF GARLAND PO BOX 469002 GARLAND TX 75046-9002	11
2.	NORTHPLACE CHURCH OF THE ASSEMBLIES OF GOD 2709 3RD ST SACHSE TX 75048-3731	12
3.	JOEL VAUGHN MCCALLUM 9214 MILES RD ROWLETT TX 75089-9041	13
4	THEODORE LANDGRAF JR 9210 MILES RD ROWLETT TX 75089-9041	14

720 STADIUM DR GARLAND TX 75046-4616

GARLAND ISD

5.

- LAND FOR THE LORD LP
 1000 CENTENNIAL BLVD
 RICHARDSON TX 75081-5857
- RIOS ASUSENA GARCIA & INES JOHNNY RIOS 8823 MERRITT RD ROWLETT TX 75089-2844
- 8. THOMAS & ANNA T MERRITT 9321 MERRITT RD ROWLETT TX 75089-9056
- 9. CATHERINE YANCEY MERRITT 2910 CASTLE DR ROWLETT TX 75089-9019
- 10. LESLIE MERRITT SKIPPER 3114 CASTLE DR ROWLETT TX 75089-9023

- 11. D R HORTON TEXAS LTD C/O FRANK MCLENDON 4306 MILLER RD STE A ROWLETT TX 75088-8033
- 12. KIMANH T & MUOI VAN NGUYEN 7914 GLENSIDE DR ROWLETT TX 75089-2893
- 13. MINH TRONG TRUONG 7910 GLENSIDE DR ROWLETT TX 75089-2893
- 14. MIRANDA L MORGAN 7906 GLENSIDE DR ROWLETT TX 75089-2893
- 15. NIDYA & ALBERT GONZALES 7902 GLENSIDE DR ROWLETT TX 75089-2893
- 16. JULIE T BOUNHOSEG 7814 GLENSIDE DR ROWLETT TX 75089-2892
- 17. JEFFREY S & CHRISTY D MORROW TRUSTEES 7810 GLENSIDE DR ROWLETT TX 75089-2892
- 18. OWNER WITHHELD PER SEC. #25.025 OR 25.026 OF TEXAS PROPERTY TAX CODE
- 19. JAMES R & LISA DUNN 7714 GLENSIDE DR ROWLETT TX 75089-2891
- 20. TUNG LE 7710 GLENSIDE DR ROWLETT TX 75089-2891

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

21.	BILLY BOB & JUDY LYNEE FLEMING 7706 GLENSIDE DR ROWLETT TX 75089-2891	31.	EDRA LAVONNE BRASHEAR 7805 GLENSIDE DRIVE ROWLETT TEXAS 75089-2884
22.	THU Q PHAM 7702 GLENSIDE DR ROWLETT TX 75089-2891	32.	K2 REAL ESTATE LP 1A 205 CATELAIN DR ST ALBERT AB 58N 584 CANADA
23.	CASTLE HILL EST OWNERS ASSN C/O LONE STAR ASSN MGMT 2500 LEGACY DR STE 220 FRISCO TX 75034-1848	33.	THY NGUYEN & VAN DANH 7901 GLENSIDE DR ROWLETT TX 75089-2883
24.	JOHN WALTON & DEBRA RENEE OLIVER 7614 GLENSIDE DR ROWLETT TX 75089-2890	34.	LEWIS E & SHELONNIE OLIVER 7905 GLENSIDE DR ROWLETT TX 75089-2883
25.	PHI NGOC VU 7610 GLENSIDE DR ROWLETT TX 75089-2890	35.	ALTON D & VIRGINIA A OLLINS 8001 GLENSIDE DR ROWLETT TX 75089-2882
26.	KHANH NGUYEN 7701 GLENSIDE DR ROWLETT TX 75089-2885	36.	MAUREEN PERSON 2918 CREEKBEND CT SACHSE TX 75048-2356
27.	JIMMY Q TRAN & JEANNIE H CAO 7705 GLENSIDE DR ROWLETT TX 75089-2885	37.	DUANE HILL 3809 KNIGHT DR ROWLETT TX 75089-2897
28.	JUDETH M CUNNINGHAM 7709 GLENSIDE DR ROWLETT TX 75089-2885	38.	HIEU DANH 3801 KNIGHT DR ROWLETT TX 75089-2897
29.	MINH & ANNE FUI NGUYEN 7713 GLENSIDE DR ROWLETT TX 75089-2885	39.	ANH TUY TRAN & TON HONG 3609 KNIGHT DR ROWLETT TX 75089-2899
30.	BING THANH LE 7801 GLENSIDE DR ROWLETT TX 75089-2884	40.	CASTLE HILL EOA C/O LONE STAR ASSN MGMT 2500 LEGACY DR STE 220 FRISCO TX 75034-1848

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

41.	VINH TRINH 7914 GLENVIEW WAY ROWLETT TX 75089-2867	51.	CUONG DO 2598 GLEN KELLER CT SAN JOSE, CA 95148-4138
42.	GUSTAVO SANTANA 7906 GLENVIEW WAY ROWLETT TX 75089-2867	52.	KIET NGUYEN 3710 DUNHILL PL ROWLETT TX 75089-2889
43.	ANDREW F JULY 7902 GLENVIEW WAY ROWLETT TX 75089-2867	53.	VIET TRAN 3706 DUNHILL PL ROWLETT TX 75089-2889
44.	CHRISTI R & BRIAN S ZUMWALT 7814 GLENVIEW WAY ROWLETT TX 75089-2868	54.	CAROLE A WILLIMS 3702 DUNHILL PL ROWLETT TX 75089-2889
45.	BRIAN & CHRISTINE SCHMIDT 7810 GLENVIEW WAY ROWLETT TX 75089-2868	55.	PHONG NGUYEN 3613 DUNHILL PL ROWLETT TX 75089-2886
46.	GARY PHILIP & TAMARA JEAN PETERSON 7806 GLEVIEW WAY ROWLETT TX 75088-8033	56.	RITA IGIEHON 3702 MANOR DR ROWLETT TX 75089-2873
47.	GLENN PHILIP & WANDA JEAN BROWNMILLER 7802 GLENVIEW WAY ROWLETT TX 75089-2868	57.	DAT PHAN & TRAN XUAN 7801 GLENVIEW WAY ROWLETT TX 75089-2871
48.	SHARA GIBBS & ROOSEVELT GIBBS JR 7714 GLENVIEW WAY ROWLETT TX 75089-2869	58.	JOSE M ROMERO 7805 GLENVIEW WAY ROWLETT TX 75089-2871
49.	GARY H & MIRVAL S AHMAD 7710 GLENVIEW WAY ROWLETT TX 75089-2869	59.	QUANG TRAN & HA T LE 7809 GLENVIEW WAY ROWLETT TX 75089-2871
50.	BETHY A SUJI 7706 GLENVIEW WAY ROWLETT TX 75089-2869	60.	HA NGO & LUU THUY 7813 GLENVIEW WAY ROWLETT TX 75089-2871

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- 61. THUAN VAN HO 7905 GLENVIEW WAY ROWLETT TX 75089-2854
- 62. ALEXANDER P DANIEL 7909 GLENVIEW WAY ROWLETT TX 75089-2854
- 63. HUYEN B VO 7810 DREAM MAKER WAY ROWLETT TX 75089-2880
- 64. TU V NGUYEN
 7806 DREAM MAKER WAY
 ROWLETT TX 75089-2880
- 65. JULIO C LUGO 7802 DREAM MAKER WAY ROWLETT TX 75089-2880
- 66. LISA WILSON
 3614 MANOR DR
 ROWLETT TX 75089-2874
- 67. ADA MCPHAUL
 3610 MANOR DR
 ROWLETT TX 75089-2874
- 68. JAMES A & TRACY G STAFFORD 3606 MANOR DR ROWLETT TX 75089-2874
- 69. P G MATHEW 3602 MANOR DR ROWLETT TX 75089-2874
- 70. EVERADO & MAYRA MARTINEZ 3514 MANOR DR ROWLETT TX 75089-2875

- 71. GARY L & LISA M WILLIAMS 3510 MANOR DR ROWLETT TX 75089-2875
- 72. JULIE HOANG 3506 MANOR DR ROWLETTE, TX 75089-2875
- 73. DUNG PHAN
 3502 MANOR DR
 ROWLETT TX 75089-2875
- 74. GERALD BELL PARKER JR 3414 MANOR DR ROWLETT TX 75089-2876
- 75. WILLA J CUBBAGE 3410 MANOR DR ROWLETT TX 75089-2876
- 76. LIZY & JIMMY JOHNS
 3406 MANOR DR
 ROWLETT TX 75089-2876
- 77. CHELSEA THI NGUYEN & VINCENT VAN TRAN 3402 MANOR DR ROWLETT TX 75089-2876
- 78. ROBERT LEE THOMAS JR 3401 DUNHILL PL ROWLETT TX 75089-8904
- 79. HOPE TRAN
 4359 BEL ESTOS WAY
 UNION CITY, CA 94587-3825
- 80. NHAN DOAN & UYEN PHAN 3409 DUNHILL PL ROWLETT TX 75089-8904

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

81.	THIEN PHAM 3413 DUNHILL PL ROWLETT TX 75089-8904	91.	ALLEN & MARY E BRANCH 3513 GLENVIEW WAY ROWLETT TX 75089-8905
82.	JASON M PHAN 3501 DUNHILL PL ROWLETT TX 75089-2887	92.	JOHHNY W & PATRICIA A LEATHERS 3509 GLENVIEW WAY ROWLETT TX 75089-8905
83.	MARTHA CERELLA LONG 3505 DUNHILL PL ROWLETT TX 75089-2887	93.	JOSE ROBERTO & YASMINA FLORES 3505 GLENVIEW WAY ROWLETT TX 75089-8905
84.	EARL MATTHEW JR & MELODY MATTHEW 3509 DUNHILL PL ROWLETT TX 75089-2887	94.	KHOA TAN DAO 3501 GLENVIEW WAY ROWLETT TX 75089-8905
85.	MICHAEL GENE & ALISON ELIZABETH KEYES 3513 DUNHILL PL ROWLETT TX 75089-2887	95.	LIDIA M LUNDY 3413 GLENVIEW WAY ROWLETT TX 75089-8906
86.	MICHAEL & KATHY B GAWLIK 3601 DUNHILL PL ROWLETT TX 75089-2886	96.	KIET TRAN 2598 GLEN KELLER CT SAN JOSE, CA 95148-4138
87.	TONY NGUYEN 3605 DUNHILL PL ROWLETT TX 75089-2886	97.	THAO THANH VO 3405 GLENVIEW WAY ROWLETT TX 75089-8906
88.	JOE A & KRISTIE L ROCHA 3609 DUNHILL PL ROWLETT TX 75089-2886	98.	THU ANH DOAN & PHAT HUU PHAM 3402 DUNHILL PL ROWLETT TX 75089-8907
89.	BRUCE E & JUDY B COLEMAN 3605 GLENVIEW WAY ROWLETT TX 75089-2879	99.	GIAN M DIN 3406 DUNHILL PL ROWLETT TX 75089-8907
90.	SEAN & BRADY MCDERMOTT 3601 GLENVIEW WAY ROWLETT TX 75089-2879	100.	DEEPA MANNATH 3410 DUNHILL PL ROWLETT TX 75089-8907

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

101.	KHYBER HOLDINGS LLC 3414 DUNHILL PL ROWLETT TX 75089-8907	111.	VIET VAN VUONG 3409 KNIGHT DR ROWLETT TX 75089-2966
102.	STERLING L ROBINSON 3502 DUNHILL PL ROWLETT TX 75089-2888	112.	QUANG NGUYEN 3401 KNIGHT DR ROWLETT TX 75089-2966
103.	JON MARSHALL VORHIES & TERESA M BREWER 3506 DUNHILL PL ROWLETT TX 75089-2888	113.	TRUNG QUOC NGUYEN 3402 KNIGHT DR ROWLETT TX 75089-2856
104.	BARBARA JEAN HAMMOND 7805 DREAM MAKER WAY ROWLETT TX 75089-2895	114.	JEFFREY NILS & HEATHER NOEL VANHOUTEN 3406 KNIGHT DR ROWLETT TX 75089-2856
105.	LAN THI NGUYEN 7809 DREAM MAKER WAY ROWLETT TX 75089-2895	115.	DANIEL CALVO MONTES & FABIOLA V ARTEAGA VERUSCHKA 3410 KNIGHT DR ROWLETT TX 75089-2856
106.	TRAM THI KIEU NGO 7813 DREAM MAKER WAY ROWLETT TX 75089-2895	116.	GARY A & JOHNNIE FLETCHER 3414 KNIGHT DR ROWLETT TX 75089-2856
107.	KOVU & SEENA VARGHESE 7901 DREAM MAKER WAY ROWLETT TX 75089-2846	117.	EULA H HYATT 3502 KNIGHT DR ROWLETT TX 75089-2857
108.	XUAN THANH & SANH VAN NGUYEN 3505 KNIGHT DR ROWLETT TX 75089-2965	118.	JOSE L & SUSAN MARGARET FLORES 3506 KNIGHT DR ROWLETT TX 75089-2857
109.	PHUONG NGUYEN 3501 KNIGHT DR ROWLETT TX 75089-2965	119.	JILL & SHAY HOUSTON 3510 KNIGHT DR ROWLETT TX 75089-2857
110.	TRUNG QUANG LE 3413 KNIGHT DR ROWLETT TX 75089-2966	120.	CHRISTIANA I OGBONNA 3514 KNIGHT DR ROWLETT TX 75089-2857

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

121.	SAMER ELSADI 3513 MANOR DR ROWLETT TX 75089-2872	131.	ROBERT J HARRIS 2314 CASTLE DR ROWLETT TX 75089-2727
122.	MOHAMED CHAHINE 3509 MANOR DR ROWLETT TX 75089-2872	132.	H C HERBOLD 3014 PECAN RIDGE DR ROWLETT TX 75088-5949
123.	FUAD M MASOUD 3505 MANOR DR ROWLETT TX 75089-2872	133.	PHYLLIS & PATTERSON MARILYN WYRICK INGRAM 103 BUCKEYE TRL AUSTIN TX 78746-4417
124.	HELEN P TRAN 3501 MANOR DR ROWLETT TX 75089-2872	134.	CITY OF ROWLETT PO BOX 99 ROWLETT TX 75030-0099
125.	PHUONG LINDA TRAN 3413 MANOR DR ROWLETT TX 75089-2877	135.	FAIRFIELD ASSETS CORP 5400 PRESTON OAKS RD APT 3070 DALLAS TX 75254-8464
126.	WESLEY & ELIZABETH B SAMUEL 3409 MANOR DR ROWLETT TX 75089-2877	136.	ABSTRACT 225 NO 1 LP 4011 COMMERCE ST DALLAS TX 75226-1712
127.	CINDY GAMBLE 3405 MANOR DR ROWLETT TX 75089-2877	137.	JIM DORSEY 1621 LAKESIDE DR GARLAND TX 75042-5813
128.	YESHE F & YAREGAL F NEGATU 3401 MAJOR DR ROWLETT TX 75089-2887	138.	DAVID BUBBUS 216 N SHORE DR RUSSELLVILLE, AR 72802-8827
129.	CASTLE HILL EOA C/O LONE STAR ASSOC MGMT 2500 LEGACY DR STE 220 FRISCO TX 75034-1848	139.	ELAINE THOMAS LIMITED PS 1801 TOBIN TR GARLAND TX 75043-2534

140.

TUYET VO

3309 DUCHESS WAY

ROWLETT TX 75089-1990

130. COMERICA BANK

PO BOX 650282

DALLAS TX 75265-0282

MC 6510

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

141.	CUONG MANH VU 3305 DUCHESS WAY ROWLETT TX 75089-1990	151.	CUONG NGO 3013 DUCHESS WAY ROWLETT TX 75089-1991
142.	DAVID RAY COWART 3301 DUCHESS WAY ROWLETT TX 75089-1990	152.	JIMMY TUAN NGUYEN 3009 DUCHESS WAY ROWLETT TX 75089-1991
143.	TRUNG H NGUYEN 3213 DUCHESS WAY ROWLETT TX 75089-1985	153.	SHAWN CRONIN 3005 DUCHESS WAY ROWLETT TX 75089-1991
144.	HANH THI NGUYEN 3209 DUCHESS WAY ROWLETT TX 75089-1985	154.	CHERYL ANN & WENDELL R PERKINS BATTISTE 7701 SUMMER HILL LN ROWLETT TX 75089-2859
145.	RONALD E & KERI G CEPAK 3205 DUCHESS WAY ROWLETT TX 75089-1985	155.	GOKCEN CERAN 7613 SUMMER HILL LN ROWLETT TX 75089-2800
146.	THUY HOANG 3201 DUCHESS WAY ROWLETT TX 75089-1985	156.	LOC HUU TRAN & MYLE THI TRUONG 7609 SUMMER HILL LN ROWLETT TX 75089-2800
147.	XUAN K TRAN 3113 DUCHESS WAY ROWLETT TX 75089-1986	157.	BRANDON NGUYEN & VANTHAO THI HUYNH 7605 SUMMER HILL LN ROWLETT TX 75089-2800
148.	DENNIS C & ALONDRA THERESE GRAHAM 3109 DUCHESS WAY ROWLETT TX 75089-1986	158.	MOLLY & MATTHEW SAMUEL 3205 SILVER SPRINGS WAY ROWLETT TX 75089-2861
149.	LORRAINE MALEENY 5706 KERRY LN GARLAND TX 75043-6446	159.	ANGEL N KILMER 3002 SILVER SPRINGS WAY ROWLETT TX 75089-2865
150.	NICOLE Q NGUYEN 2834 CEDAR BROOK DR GARLAND TX 75040-9049	160.	PHUONG NGUYEN 3006 SILVER SPRINGS WAY ROWLETT TX 750892865

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

161.	PETER & GRACE LY 3010 SILVER SPRINGS WAY ROWLETT TX 75089-2865	171.	JASON SEAN & JENNIFER ANN BECK 3302 SILVER SPRINGS WAY ROWLETT TX 75089-2864
162.	YVONNE E & FREDERICK A CAPERS 3014 SILVER SPRINGS WAY ROWLETT TX 75089-2865	172.	LUTITIA D FEATHERSTON 3306 DUCHESS WAY ROWLETT TX 75089-1989
163.	HOANG TAMMY 3102 SILVER SPRINGS WAY ROWLETT TX 75089-2866	173.	JAYNE CORNELL 3305 SILVER SPRINGS WAY ROWLETT TX 75089-2860
164.	DOUGLAS M & JANICE LYNN CATES 3106 SILVER SPRINGS WAY ROWLETT TX 75089-2866	174.	ANH HA T TRAN 1013 HEATHERFIELD LN SAN JOSE, CALIFORNIA 95132-2931
165.	JOHN W & DEBBIE L HAYES 3110 SILVER SPRINGS WAY ROWLETT TX 75089-2866	175.	THOMAS L WILLIAMS 9706 FOX RUN DR CLINTON MA 20735-3067
166.	HANH MINH & ANH THI VO 3114 SILVER SPRINGS WAY ROWLETT TX 75089-2866	176.	THO KHAC HO & HIEN MINH NGUYEN 3209 SILVER SPRINGS WAY ROWLETT TX 75089-2861
167.	TU TRUONG & NUONG PHAM 3202 SILVER SPRINGS WAY ROWLETT TX 75089-2863	177.	BECKY & MATTHEW SHANE 3201 SILVER SPRINGS WAY ROWLETT TX 75089-2861
168.	KEVIN PHU DAT HUYNH 3206 SILVER SPRINGS WAY ROWLETT TX 75089-2863	178.	RODRICK LEON LACY 3113 SILVER SPRINGS WAY ROWLETT TX 75089-2896
169.	FEDERAL HOME LOAN MTG CORPORATION 5000 PLANO PKWY CARROLLTON TX 75010-4900	179.	AMY E & NATHAN D SIKES 3109 SILVER SPRINGS WAY ROWLETT TX 75089-2896
170.	PHUONG DANG 3214 SILVER SPRINGS WAY ROWLETT TX 75089-2863	180.	ALYSSA TRAN 3105 SILVER SPRINGS WAY ROWLETT TX 75089-2896

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

181.	LINH HANG & DINH NGUYEN 2317 HAVERHILL DR TYLER TX 75707-4496	191.	ANTONIO G RIVERA 3106 DUCHESS WAY ROWLETT TX 75089-1987
182.	HAI DINH TRUONG & MAI THAO THI NGUYEN 3013 SILVER SPRINGS WAY ROWLETT TX 75089-2862	192.	LADEITRA ADKINS 3110 DUCHESS WAY ROWLETT TX 75089-1987
183.	HUNG PHUC HUA LAN QUE HUA 3009 SILVER SPRINGS WAY ROWLETT TX 75089-2862	193.	THANG Q PHAM 3114 DUCHESS WAY ROWLETT TX 75089-1987
184.	GLYNNIS JOAN & WENDEL RAMON BAROT 3005 SILVER SPRINGS WAY ROWLETT TX 75089-2862	194.	DOLORES M BISCHOF 3202 DUCHESS WAY ROWLETT TX 75089-1988
185.	CHERYL LYNN & JIMMY DEAN STEWART 3001 SILVER SPRINGS WAY ROWLETT TX 75089-2862	195.	STACY CARRUTH 3206 DUCHESS WAY ROWLETT TX 75089-1988
186.	ANDY THANH DUONG 3002 DUCHESS WAY ROWLETT TX 75089-1984	196.	THAO TRANG TRAN 3210 DUCHESS WAY ROWLETT TX 75089-1988
187.	DUC HUE HUA 3006 DUCHESS WAY ROWLETT TX 75089-1984	197.	TUAN VAN NGUYEN 5021 GLEN VISTA DR GARLAND TX 75044-5511
188.	LAN PHAN 11721 KILKIRK LN DALLAS TX 75228-1713	198.	STEPHEN A & LAURA A SANDS 3302 DUCHESS WAY ROWLETT TX 75089-1989
189.	MINH DUE NGUYEN 3014 DUCHESS WAY ROWLETT TX 75089-1984	199.	STEPHEN & JANA B HOOTEN 7710 BLUEWOOD DR ROWLETT TX 75089-2755
190.	EKAETE I EKPO 3102 DUCHESS WAY ROWLETT TX 75089-1987	200.	CARL W & JENNIFER L FARLEY 7706 BLUEWOOD DR ROWLETT TX 75089-2755

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

201.	SCOTT A & JACQUELINE M VERTZ 7702 BLUEWOOD DR ROWLETT TX 75089-2755	211.	ALFRED T SAKER II & PATRICIA J SAKER 7702 PLANETREE DR ROWLETT TX 75089-1614
202.	GARY & CHERYLE DOYLE 7614 BLUEWOOD DR ROWLETT TX 75089-2756	212.	BAC TRAN & KIM PHUONG THI CAO 7706 PLANETREE DR ROWLETT TX 75089-1614
203.	MARK ALAN & DELORIS DYAN HAMBLIN 7610 BLUEWOOD DR ROWLETT TX 75089-2756	213.	DARREN KEITH & KIMBERLY ANN EDWARDS 2706 CHINKAPIN LN ROWLETT TX 75089-1612
204.	KEITH A & AMY I WADDELL 7606 BLUEWOOD DR ROWLETT TX 75089-2756	214.	THOMAS K & ANIYAMMA T PAUL 2710 CHINKAPIN LN ROWLETT TX 75089-1612
205.	KIRBY L GUERRA 2805 PLANETREE DR ROWLETT TX 75089-1616	215.	DAVID D & MEURIAL A SINGH 2714 CHINKAPIN LN ROWLETT TX 750891612
206.	DARLENE ESCOBAR 2801 PLANETREE DR ROWLETT TX 75089-1616	216.	MARTHA & DONALD R TENAN 2802 CHINKAPIN LN ROWLETT TX 75089-1613
207.	FRANCISO B & DEBRA A OBERA 2713 PLANETREE DR ROWLETT TX 75089-1615	217.	JOHN A & CYNTHIA D ARMSTRONG 2806 CHINKAPIN LN ROWLETT TX 75089-1613
208.	HERNDON RICHARDSON JR KIMBERLY RENEE RICHARDSON 2709 PLANETREE DR ROWLETT TX 75089-1615	218.	DIANNE P & DANIEL VILLARREAL 2805 CHINKAPIN LN ROWLETT TX 75089-1610
209.	JOHN QUANG TRAN & JUSTINE TRANG TRAN 2705 PLANETREE DR ROWLETT TX 75089-1615	219.	4700 INVESTMENT PARTNERS LLC 4700 ROWLETT RD ROWLETT TX 75088-5085
210.	BRIAN A & BRITTANY R SPRUIELL 2701 PLANETREE DR ROWLETT TX 75089-1615	220.	GARY RAY WALLACE & MARY FRANCES WALLACE 2713 CHINKAPIN LN ROWLETT TX 75089-1609

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

221.	CLINTON B & LINDA D OGILVIE 2709 CHINKAPIN LN ROWLETT TX 75089-1609	231.	DK REALTY PARTNERS LTD 1229 CRESTWICK DR MURPHY TX 75094-4142
222.	RUDY & LAURA MORENO 2705 CHINKAPIN LN ROWLETT TX 75089-1609	232.	RANDALL AIKEN 7701 PLANETREE DR ROWLETT TX 75089-1617
223.	KEN W & KATHY WESSON 2701 CHINKAPIN LN ROWLETT TX 75089-1609	233.	JAMES GODWIN & RENEE GODWIN 2610 CHINKAPIN LN ROWLETT TX 75089-1611
224.	MANIDA P WRIGHT 2613 CHINKAPIN LN ROWLETT TX 75089-1608	234.	LAURENT C & FAYNE A BOUGUYON 2606 CHINKAPIN LN ROWLETT TX 75089-1611
225.	BRYAN S KAVANAUGH & JENNIFER A KAVANAUGH 2609 CHINKAPIN LN ROWLETT TX 75089-1608	235.	ZODEL INC PO BOX 2386 FRISCO TX 75034-0044
226.	DON JOHN THOMAS 2605 CHINKAPIN LN ROWLETT TX 75089-1608	236.	BRIAN K & KRISTI L HARTLEY 7614 SCARLET OAK DR ROWLETT TX 75089-2777
227.	GREGORY MARTINEZ JR & WANDA SUE MARTINEZ 2601 CHINKAPIN LN ROWLETT TX 75089-1608	237.	JESUS PARADA & MICHELLE CHIM 7610 SCARLET OAK DR ROWLETT TX 75089-2777
228.	GARY & MARIA TIEGS 2513 CHINKAPIN LN ROWLETT TX 75089-1607	238.	MELISSA PAIGE HARGETT 7606 SCARLET OAK DR ROWLETT TX 75089-2777
229.	MICHAEL D KIRK & SVETLANA M KIRK 2509 CHINKAPIN LN ROWLETT TX 75089-1607	239.	RANDY & LANECE TANNER 2501 SWEETGUM CT ROWLETT TX 75089-2778
230.	JAMES & SHARON E WHITEFIELD 2614 PLANETREE DR ROWLETT TX 75089-1619	240.	JAMES A & LAWSON MARY L SKINNESS LAWSON 2505 SWEETGUM CT ROWLETT TX 75089-2778

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

241.	KIRT A & RUBY STACEY JAMES 2509 SWEETGUM CT ROWLETT TX 75089-2778	251.	KENNETH DIEBOLD & RENE NATALI 7605 WHITECEDAR LN ROWLETT TX 75089-1602
242.	ROBERT G &JANICE C UTTERBACK 2501 SCARLET OAK DR ROWLETT TX 75089-1651	252.	EMMETT D & SHELITA K SEALS 7606 WHITECEDAR LN ROWLETT TX 75089-1600
243.	TITTLE CHRISTINE S 2413 SCARLET OAK DR ROWLETT, TX 75089-2775	253.	MILTON F & MARGARET R WILLIAMS 7610 WHITECEDAR LN ROWLETT TX 75089-1600
244.	PATRICK & TAMMY SMITH 2409 SCARLET OAK DR ROWLETT TX 75089-2775	254.	ADAM J & KRISTI L BORISON 2406 SCARLET OAK DR ROWLETT TX 75089-2774
245	BIRDIE M GADDIS 2405 SCARLET OAK DR ROWLETT TX 75089-2775	255.	JAMES & KIM NORMAN 2410 SCARLET OAK DR ROWLETT TX 75089-2774
246.	SHERRIE T & MICHAEL A BAKER 2401 SCARLET OAK DR ROWLETT TX 75089-2775	256.	ALICIA OCHOA 7613 SCARLET OAK DR ROWLETT TX 75089-2776
247.	RICHARD TRAN 7705 WHITECEDAR LN ROWLETT TX 75089-1606	257.	THRESIAMMA & ABRAHAM KORAH 7609 SCARLET OAK DR ROWLETT TX 75089-2776
248.	MICHAEL R & BEVERLY J CARTER 7701 WHITECEDAR LN ROWLETT TX 75089-1606	258.	TERRY MILLER & JOAN MARIE HOOFNELL 7605 SCARLET OAK DR ROWLETT TX 75089-2776
249.	DANNY LEE & PATRICIA ANN REED 7613 WHITECEDAR LN ROWLETT TX 75089-1601	259.	RAUL E & MARIA G MAZARIEGOS 2413 KATHERINE DR ROWLETT TX 75089-7462
250.	CHRISTOPHER L & MELANIE S FERRELL 7609 WHITECEDAR LN ROWLETT TX 75089-1601	260.	MARIO & ROXANNE G RODRIGUEZ 2409 KATHERINE DR ROWLETT TX 75089-7462

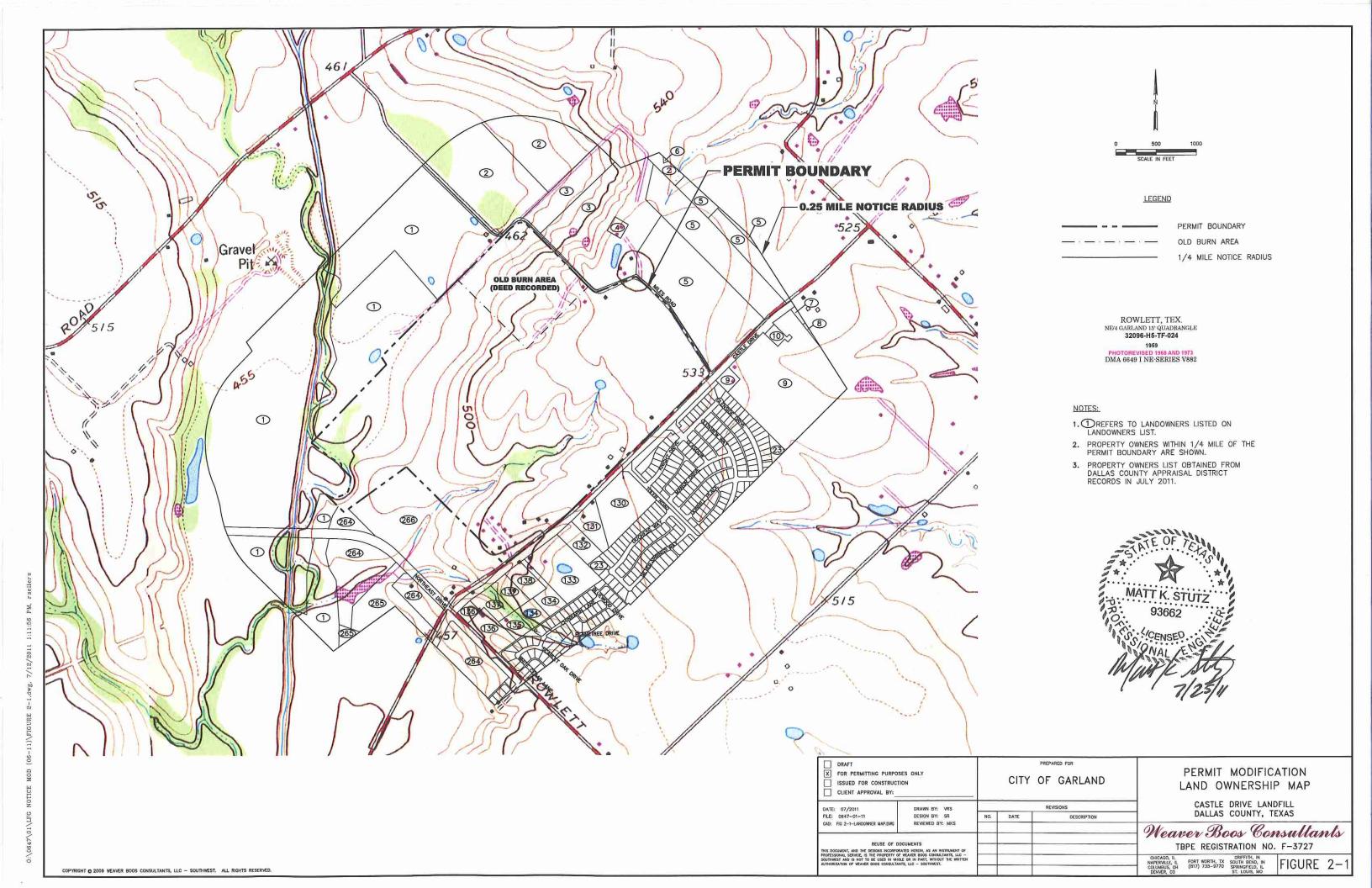
^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

261.	VIET A LE & HUONG T HOANGLE 2405 KATHERINE DR ROWLETT TX 75089-7462	271.	NGUYEN TRANG T 7802 GLENSIDE DR ROWLETT TX 75089-2892
262.	DEUTSCHE BANK NATIONAL TRUST COMPANY 7255 BAYMEADOWS WAY JACKSONVILLE FL 32256-6851	272.	TRAN SANG 7814 DREAM MAKER WAY ROWLETT TX 75089-2880
263.	HANH M TRAN 2313 KATHERINE DR ROWLETT TX 75089-7461	273.	HOA VAN NGUYEN & LOAN VU TRAN 3601 KNIGHT DRIVE ROWLETT TX 75089-2899
264.	J V SPRINGFIELD C/O MILLENNIUM MGMT GRP LLC 16250 DALLAS PKWY STE 105 DALLAS TX 75248-2622	274.	LIBI AMBOOKEN & IMRAN KHAN 3513 KNIGHT DR ROWLETT TX 75089-2965
265.	BUSH GARDENS OF SPRINGFIELD C/O HERSHAL PIERCE 4315 CROWN KNOLL CR FLOWER MOUND TX 75028-8503	275.	ANGEL & PEDRO VEGA 3613 KNIGHT DR ROWLETT TX 75089-2899
266.	PHYLLIS WYRICK 103 BUCKEYE TR AUSTIN TX 78746-4417	276.	TONY NGUYEN 3701 KNIGHT DR ROWLETT TX 75089-2898
267.	TONY H MA C/O FRANK MCLENDON 4306 MILLER RD STE A ROWLETT TX 75088-8033	277.	MAN & KAYLY NGUYEN 3705 KNIGHT DR ROWLETT TX 75089-2898
268.	ROLANDA LACHELLE MCKENZIE 7909 GLENSIDE DR ROWLETT TX 75089-2883	278.	MINH NGUYEN 3709 KNIGHT DR ROWLETT TX 75089-2898
269.	TRAN EMMY 3401 GLENVIEW WAY ROWLETT TX 75089-8906	279.	TUAN NGOC NGUYEN 3713 KNIGHT DR ROWLETT TX 75089-2898
270.	LAM & DIANE TA LY 3602 GLENVIEW WAY ROWLETT TX 75089-8908	280.	SEQUITA MYERSCARLISLE 3805 KNIGHT Dr ROWLETT TX 75089-2897

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.

281.	THOMAS A CHAVEZ 8014 GLENSIDE DR ROWLETT TX 75089-2894	286.	AN NGUYEN 7901 GLENVIEW WAY ROWLETT TX 75089-2854
282.	MARIZA G AGUILAR 8010 GLENSIDE DR ROWLETT TX 75089-2894	287.	TOAN MAN QUAN 7906 DREAM MAKER WAY ROWLETT TX 75089-2881
283.	GIAU PHAN 8006 GLENSIDE DR ROWLETT TX 75089-2894	288.	JAGJIT SINGH 7902 DREAM MAKER WAY ROWLETT TX 75089-2881
284.	TIMOTHY M & LORRIE PRITCHARD 3305 WESTSHORE DR ROWLETT TX 75088-1575	289.	KIM HIEU NGUYEN 3509 KINIGHT DR ROWLETT TX 75089-2965
285.	NGOC P TRAN 3514 GLENVIEW WAY ROWLETT TX 75089-2855	290.	CHUYEN LE & QUYNH TRUONG 3405 KNIGHT DR ROWLETT TX 75089-2966

^{*}In accordance with 330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. Based on conversations with the Dallas County Appraisal District, their records do not include mineral ownership.



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ATTACHMENT 3 PART I FORM



Texas Commission on Environmental Quality

Permit or Registration Application for Municipal Solid Waste Facility

Part I

A. General Information

Facility Name:	Castle Drive	Landfill		
Physical or Street Address (if available):	3637 Castle	Dr.		
(City) (County)(State)(Zip Code):	Garland	Dallas	TX	75089
(Area Code) Telephone Number:	(972) 205-34	124		
Charter Number:		· · ·		

If the application is submitted on behalf of a corporation, provide the Charter Number as recorded with the Office of the Secretary of State for Texas.

Operator Name ¹ :	City of Garla	nd		
Mailing Address:	P.O. Box 46	9002		
(City) (County)(State)(Zip Code):	Garland	Dallas	TX	75046
(Area Code) Telephone Number:	(972) 205-34	124		
(Area Code) FAX Number:	(972) 205-34	134		
Charter Number:				

If the permittee is the same as the operator, type "Same as Operator".

Permittee Name:	Same as Operator
Physical or Street Address (if available):	
(City) (County)(State)(Zip Code):	
(Area Code) Telephone Number:	
Charter Number:	

If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent Name:	Lonnie R. Banl	KS .		
Mailing Address:	P.O. Box 4690	02		
(City) (County)(State)(Zip Code):	Garland	Dallas	TX	75046
(Area Code) Telephone Number:	(972) 205-3675			
(Area Code) FAX Number:	(972) 205-3434	1		

Application Type:

✓ Permit		Major Amendment	Minor Amendment
Registration	\boxtimes	Modification	Temporary Authorization
	\boxtimes	w/Public Notice	
		w/out Public Notice	Notice of Deficiency Response

¹ The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on this application [Section 361.087 Texas Health and Safety Code].

Facility Classification:							
\boxtimes	Type I		Type IV		Type V		Type IX
	Type I AE		Type IV AE	100 100 100	Type VI		7 Part of the Control
						· · · · · · · · · · · · · · · · · · ·	
Acti	vities covered by this	applic	ation (check all th	at app			
	Storage		Processing			Disposal	
Was	ste management unit	s cove	red by this applica	ation (d	check all that app	ly):	
	Containers		Tanks		Surface		Landfills
					Impoundments	Constitution	
	Incinerators		Composting		Type IV	1000000	Type IX
					Demonstration	12.25.12.1 12.25.12.1 12.25.12.1	Energy/Material
		31 53 54 53			Unit	100 100 200 100 100 100 100 100 100 100	Recovery
	Other (Specify)				Other (Specify)	100 (100 (100 (100 (100 (100 (100 (100	
	Other (Specify)				Other (Specify)		
***********							**************************************
	is submittal part of a	Consc	lidated Permit Pro	ocessi	ng request, in acc	cordance	with 30 TAC Chapter
33?	□Yes ⊠ N						
	☐ 162 ⊠ IV						
If yes, state the other TCEQ program authorizations requested.							
							SSE" (Last" SSEs et a compresionale de mois de la latin de la l La latin de la
							on. For amendments,
							exact changes to the
permit or registration conditions and supporting documents referenced by the permit or registration. Also, provide an explanation of why the amendment, modification, or temporary authorization is							
		nation	of why the ame	endme	ent, modification,	or temp	orary authorization is
	ested.			1:E .	46	A 44 1	
	purpose of this per agement Plan (LGM						nent 14 - Landfill Gas
IVICII	agement fall (EGIV	1 / 10 11	icol polate the ilis	tanaut	in or the passive	venta into	the site a LOMIF.
Doe	s the application cor	itain co	nfidential Materia	? [Yes ⊠ No		

If yes, cross-reference the confidential material throughout the application and submit as a separate document or binder conspicuously marked "CONFIDENTIAL."

Alternative Language Notice Instructions (Not Applicable)

For certain permit applications, public notice in an alternate language is required. If an elementary school or middle school nearest to the facility offers a bilingual program, notice may be required to be published in an alternative language. The Texas Education Code, upon which the TCEQ alternative language notice requirements are based, trigger a bilingual education program to apply to an entire school district should the requisite alternative language speaking student population exist. However, there may not exist any bilingual students at a particular school within a district which is required to offer the bilingual education program. For this reason, the requirement to publish notice in an alternative language is triggered if the nearest elementary or middle school, as a part of a larger school district, is required to make a bilingual education program available to qualifying students and either the school has students enrolled at such a program on-site, or has students who attend such a program at another location in satisfaction of the school's obligation to provide such a program as a member of a triggered district.

If it is determined that an alternative language notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language. Electronic versions of the Spanish template examples are available from the TCEQ to help the applicant complete the publication in the alternative language.

Alternative Lan	guage Notice Application Form.				
Alternative lang	guage notice confirmation for this application:				
1.	Is a bilingual program required by the Texas Education Code in the school district where the facility is located? \square YES \square NO				
	(If NO, alternative language notice publication not required)				
2.	If YES to question 1, are students enrolled in a bilingual education program at either the elementary school or the middle school nearest to the facility? YES NO				
(IF YES to qu consider the ne	estions 1 and 2, alternative language publication is required; If NO to question 2, then ext question)				
3.	If YES to question 1, are there students enrolled at either the elementary school or the middle school nearest to the facility who attend a bilingual education program at another location? \square YES \square NO				
(If Yes to que consider the ne	stions 1 and 3, alternative language publication is required; If NO to question 3, then ext question)				
4.	If YES to question 1, would either the elementary school or the middle school nearest to the facility be required to provide a bilingual education program but for the fact that it secured a waiver from this requirement, as available under 19 TAC '89.1205(g)? YES NO				
	tions 1 and 4, alternative language publication is required; If NO to question 4, alternative e publication not required)				
	education program(s) is provided by either the elementary school or the middle school acility, which language(s) is required by the bilingual program?				
complete appli	nts for new permits and major amendments must make a copy of the administratively cation available at a public place in the county where the facility is, or will be, located for bying by the public.				
	where administratively complete permit application will be located.				
Public Place court house, o	(e.g., public library, county city hall, etc.):				
Mailing Address:					
	r)(State)(Zip Code):				
(Area Code) Telephone Number:					

B. Facility Location

Except for Type I AE and Type IV AE landfill facilities, for permits, registrations, amendments, and modifications requiring public notice, provide the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted. http://www.ci.garland.tx.us/Home/Departments/Utility+Services/Environmental+Waste+Services/ Local Government Jurisdiction: Within City Limits of: Within Extraterritorial Jurisdiction of City of: Is the proposed municipal or industrial solid waste disposal or processing facility located in an area in which the governing body of the municipality or county has prohibited the disposal or processing of municipal or industrial solid waste? (If YES, provide a copy of the ordinance or order): ☐ YES Provide a description of the location of the facility with respect to known or easily identifiable landmarks. Not Applicable Detail the access routes from the nearest United States or state highway to the facility. Not Applicable Provide the latitudinal and longitudinal geographic coordinates of the facility. Latitude Longitude Elevation (above msl) Is the facility within the Coastal Management Program boundary? ⊠ No Texas Department of Transportation District Location: TXDOT District Name & Number: Not Applicable District Engineer's Name: Street or P. O. Box: (City) (County)(State)(Zip Code): (Area Code) Telephone Number: (Area Code) FAX Number: The local governmental authority or agency responsible for road maintenance: Agency Name Not Applicable Contact Person's Name: Street or P. O. Box: (City) (County)(State)(Zip Code): (Area Code) Telephone Number: (Area Code) FAX Number: State Representative: District Number: Not Applicable State Representative's Name: District Office Address: (City) (County)(State)(Zip Code): (Area Code) Telephone Number: (Area Code) FAX Number:

State Senator:	
District Number:	Not Applicable
State Senator's Name:	
District Office Address:	To control of the con
(City) (County)(State)(Zip Code):	THE STATE OF THE S
(Area Code) Telephone Number:	
(Area Code) FAX Number:	And the state of t
Council of Government (COG) Information	on:
COG Name:	Not Applicable
COG Representative's Name:	THE REPORT OF THE PROPERTY OF
COG Representative's Title:	100
Street or P. O. Box:	Submissions Applications App
(City) (County)(State)(Zip Code):	
(Area Code) Telephone Number:	And the state of t
(Area Code) FAX Number:	
River Basin Information:	
River Authority:	Not Applicable
Contact Person's Name:	
Watershed Sub-Basin Name:	Section 1.
Street or P. O. Box:	
(City) (County)(State)(Zip Code):	AND
(Area Code) Telephone Number:	The second secon
(Area Code) FAX Number:	10 miles
This site is located in the following Dist	rict of the U.S. Army Corps of Engineers:
Albuquerque, NM Ft. Worth,	TX Galveston, TX Tulsa, OK

C. Maps

General

For permits, registrations, and amendments only, submit a topographic map, ownership map, county highway map, or a map prepared by a registered professional engineer or a registered surveyor which shows the facility and each of its intake and discharge structures and any other structure or location regarding the regulated facility and associated activities. Maps must be of material suitable for a permanent record, and shall be on sheets 8-1/2 inches by 14 inches or folded to that size, and shall be on a scale of not less than one inch equals one mile. The map shall depict the approximate boundaries of the tract of land owned or to be used by the applicant and shall extend at least one mile beyond the tract boundaries sufficient to show the following:

each well, spring, and surface water body or other water in the state within the map area;

the general character of the areas adjacent to the facility, including public roads, towns and the nature of development of adjacent lands such as residential, commercial, agricultural, recreational, undeveloped, etc;

the location of any waste disposal activities conducted on the tract not included in the application; and

the ownership of tracts of land adjacent to the facility and within a reasonable distance from the proposed point or points of discharge, deposit, injection, or other place of disposal or activity.

General location maps

For permits, registrations, and amendments only, submit at least one general location map at a scale of one-half inch equals one mile. This map shall be all or a portion of a county map prepared by Texas Department of Transportation (TxDOT). If TxDOT publishes more detailed maps of the proposed facility area, the more detailed maps shall also be included in Part I. Use the latest revision of all maps.

Land ownership map

Provide a map that locates the property owned by adjacent and potentially affected landowners. The maps should show all property ownership within 1/4 mile of the facility, on-site facility easement holders, and all mineral interest ownership under the facility.

Landowners list

Provide the adjacent and potentially affected landowners' list, keyed to the land ownership map with each property owner's name and mailing address. The list shall include all property owners within 1/4 mile of the facility, easement holders, and all mineral interest ownership under the facility. Provide the property, easement holders', and mineral interest owners' names and mailing addresses derived from the real property appraisal records as listed on the date that the application is filed. Provide the list in electronic form, as well.

D. Property owner information (Not Applicable)

For permits, registrations, amendments, and modifications that change the legal description, a change in owner, or a change in operator only, provide the following:

- the legal description of the facility;
 - (A) the abstract number as maintained by the Texas General Land Office for the surveyed tract of land;
 - (B) the legal description of the property and the county, book, and page number or other generally accepted identifying reference of the current ownership record;
 - (C) for property that is platted, the county, book, and page number or other generally accepted identifying reference of the final plat record that includes the acreage encompassed in the application and a copy of the final plat, in addition to a written legal description;
 - (D) a boundary metes and bounds description of the facility signed and sealed by a registered professional land surveyor;
 - (E) on-site easements at the facility, and
 - (F) drawings of the boundary metes and bounds description; and
- (2) a property owner affidavit signed by the owner.

E. Legal authority (Not Applicable)

Provide verification of the legal status of the owner and operator, such as a one-page certificate of incorporation issued by the secretary of state. List all persons having over a 20% ownership in the proposed facility.

				lity:			a material and a second and a second as			
Ц	Private		Corporation		Partnership		Prop	orietorship		Non-Profit Organization
	Public		Federal		Military		State	-		Regional
	County		Municipal		Other (Specify)					
Does	the opera	tor ov	vn the facility un	iits ai	nd the facility p	ropert	y? [Yes 🗌	No	
chan	ge in owne	r, or a	a change in ope	erator	s submit a cop	y of th	e lease			egal description, r the option to b
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For landfill permit applications only, evidence of competency to operate the facility shall also include landfilling and earthmoving experience if applicable, and other pertinent experience, or licenses as described in 30 TAC Chapter 30 possessed by key personnel. The number and size of each type of equipment to be dedicated to facility operation will be specified in greater detail on Part IV of the application within the site operating plan.

Landfilling/Earthmoving Equipment Types	Personnel Experience or Licenses

For mobile liquid waste processing units, submit a list of all solid waste, liquid waste, or mobile waste units that the owner and operator have owned or operated within the past five years. Submit a list of any final enforcement orders, court judgments, consent decrees, and criminal convictions of this state and the federal government within the last five years relating to compliance with applicable legal requirements relating to the handling of solid or liquid waste under the jurisdiction of the commission or the United States Environmental Protection Agency. Applicable legal requirement means an environmental law, regulation, permit, order, consent decree, or other requirement.

Solid waste, liquid waste, or mobile waste	
units owned or operated within past 5	judgments, consent decrees, and criminal convictions
years	

G. Appointments (Not Applicable)

Provide documentation that the person signing the application meets the requirements of 30 TAC §305.44, Signatories to Applications. If the authority has been delegated, provide a copy of the document issued by the governing body of the owner or operator authorizing the person that signed the application to act as agent for the owner or operator.

H. Application Fees

For a new permit, registration, amendment, modification, or temporary authorization, submit a \$150 application fee.

For authorization to construct an enclosed structure over an old, closed municipal solid waste landfill in accordance with 30 TAC 330 Subchapter T, submit a \$2,500 application fee.

If paying by check, send payment to:

Texas Commission on Environmental Quality Financial Administration Division, MC 214 P. O. Box 13087 Austin, Texas 78711-3087

Payment maybe made online using TCEQ e-	-pay at www.tceq.state.tx.us/e-services/
E-pay confirmation number	582EA000101140

PROPERTY OWNER AFFIDAVIT

" *	
(property owner)	
acknowledge that the State of Texas may hold me either joir maintenance, and closure and post-closure care of the facilit closure, I acknowledge that I have a responsibility to file wit public advising that the land will be used for a solid waste fa begins operating as a municipal solid waste landfill facility, a disposal operations and closure of the landfill units in accord §330.19, Deed Recordation. I further acknowledge that I chave access to the property during the active life and post-for the purpose of inspection and maintenance."	y. For a facility where waste will remain afte the county deed records an affidavit to the acility prior to the time that the facility actually nd to file a final recording upon completion of ance with Title 30 Texas Administrative Code or the operator and the State of Texas sha
(Owner signature)	(Date)

Signature Page

l, Lonnie R. Banks	Managing Director, Environmental Waste Services ,
(Operator)	(Title)
supervision in accordance with a system de evaluate the information submitted. Base system, or those persons directly responsi to the best of my knowledge and belief, tr	nent and all attachments were prepared under my direction or esigned to assure that qualified personnel properly gather and ed on my inquiry of the person or persons who manage the ble for gathering the information, the information submitted is, ue, accurate, and complete. I am aware there are significant including the possibility of fine and imprisonment for knowing
Signature: Aurio R. Bour	Date: 7-25-11
TO BE COMPLETED BY THE OPERATOR REPRESENTATIVE FOR THE OPERATOR	R IF THE APPLICATION IS SIGNED BY AN AUTHORIZED
	harahu daajanata
(Print or Type Operator Name)	, hereby designate(Print or Type Representative Name)
information as may be requested by the Co Texas Commission on Environmental Qual Texas Solid Waste Disposal Act permit. I f application, for oral statements given by m	e said representative to sign any application, submit additional commission; and/or appear for me at any hearing or before the lity in conjunction with this request for a Texas Water Code or urther understand that I am responsible for the contents of this by authorized representative in support of the application, and tions of any permit which might be issued based upon this
Pri	inted or Typed Name of Operator or Principal Executive Officer
·	
	Signature
SUBSCRIBED AND SWORN to before me	by the said Lonnie R. Banks
On this25 th day ofJuli	
	h day of <u>September</u> , 2013
	Admia J. Burn Notary Public in and for
SAMIA G. BURNS Notary Public, State of Texas My Commission Expires	
September 20, 2013	(Vallas County, Texas

(Note: Application Must Bear Signature & Seal of Notary Public)

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ATTACHMENT 4 ATTACHMENT 14 REVISION PAGES (REDLINE/STRIKEOUT FORMAT)

CITY OF GARLAND CASTLE DRIVE LANDFILL DALLAS COUNTY, TEXAS MSW PERMIT NO. 1062A

PERMIT MODIFICATION

ATTACHMENT 14 LANDFILL GAS MANAGEMENT PLAN

Prepared for

City of Garland

April 1994 Revised April 1998 Revised May 2002 Revised January 2010

Revised July 2011

Prepared by
Weaver Boos Consultants, LLC–Southwest
TBPE Registration No. F-3727

6420 Southwest Boulevard, Suite 206 Fort Worth, Texas 76109 817-735-9770

Project No. 0647-01-11-25-06

6.0 LFG CONTROL SYSTEM INSTALLATION AND MONITORING

The objective of the active gas control system installation is to prevent the migration of landfill gas.

The results of Landfill Gas Monitoring, described in Section 4.0, will be presented to TCEQ for review. If a LFG control system is required at the landfill to control/prevent off-site gas migration, the City of Garland will pursue one of two alternatives.

- Passive Gas Control System
- Active Gas Control System

An active gas system is currently in place for the landfill due to potential beneficial use of the landfill gas. However, the City may adopt a passive gas control system in the future if changes in the economics of an active system, applicable regulations, and/or site conditions occur.

Three passive gas vents have been installed south of landfill gas permit probe PP-9 to reduce the potential for off-site landfill gas migration. Attachment H2 and H3 depict the location of the three passive vents.

[2011 Installation] The 2011 installation, as shown in Attachment H2, includes the installation of seventeen passive vents and conversion of the three existing vents near PP-9 to active soil vapor extraction wells.

6.1 Passive Gas Control System

Passive vents can release some of the pressure of landfill gas within the waste and soil, thus reducing the amount of localized gas migration. The passive system is relatively economical to design, install and operate. Typical passive gas control system consist of gas "vents". The vents are simple in design and require low maintenance. The design of a typical passive gas control vent is shown in **Appendix H**.

The proposed passive gas control system at the City of Garland Castle Drive Landfill will consist of gas vents installed in the refuse or in the existing ground outside the limits of waste. The passive vents will initially free vent into the atmosphere, thereby reducing subsurface pressure and control local lateral migration. The design and the spacing of the vent wells will be such that in the future, if necessary, the system could be converted into an "Active Gas Control system".

The locations of the passive vents will be determined using any one of the following three methods:

A. Surface monitoring and observations:

Observations of the surface conditions at the site can aid in determining the best location(s) for passive vents. Venting cracks, stressed vegetation, and odors are all indicative of gas migration through the soil cover. In addition, monitoring of the surface may be conducted to locate less visible emission sources.

ATTACHMENT H4 PASSIVE VENT LITHOLOGIC LOGS

ATTACHMENT H5 DRILLER'S PASSIVE VENT COMPLETION REPORTS